United States Court of Appeals

for the Second Circuit

JOINT APPENDIX

B
PLs

76-4044

United States Court of Appeals
FOR THE SECOND CIRCUIT

No. 76-4044

BOC INTERNATIONAL LIMITED, f/k/a The British Oxygen Company Limited, BOC FINANCIAL CORPORATION, BOC HOLDINGS, LIMITED, and BRITISH OXYGEN INVESTMENTS, LIMITED,

Petitioners,

—against—

FEDERAL TRADE COMMISSION,

Respondent.

No. 76-4045

AIRCO, INC.,

Petitioner,

—against—

FEDERAL TRADE COMMISSION,

Respondent.

ON PETITIONS FOR REVIEW OF AN ORDER
OF THE FEDERAL TRADE COMMISSION

JOINT APPENDIX, VOLUME 4
PAGES A1563 TO A2218
TRANSCRIPT

PAUL, WEISS, RIFKIND, WHARTON & GARRISON
Attorneys for Petitioners
BOC International Limited, BOC Financial Corporation, BOC Holdings, Limited, and British Oxygen Investments, Limited
345 Park Avenue
New York, New York 10022

SHEARMAN & STERLING
Attorneys for Petitioner
Airco, Inc.
53 Wall Street
New York, New York 10005

OFFICE OF THE GENERAL COUNSEL
Federal Trade Commission
Washington, D.C. 20580

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BEFORE THE

FEDERAL TRADE COMMISSION

IN THE MATTER of	
BRITISH OXYGEN COMPANY, LTD., BOC FINANCIAL CORPORATION, BOC HOLDINGS, LTD., BRITISH OXYGEN INVESTMENTS, LTD., AIRCO, INC	Docket No. 8955

Room 7314, The Star Building
414 Eleventh Street, N.W.
Washington, D. C.
Thursday, May 9, 1974

Met, pursuant to recess, at 9:30 a.m.

BEFORE:

ERNEST G. BARNES, Presiding Administrative Law Judge

APPEARANCES:

K KEITH THURMAN, GORDON YOUNGWOOD, DON PURCELL, DARYL NICKEL, RHETT KRULLA and JOHN HOAGLAND, on behalf of the Federal Trade Commission

JAY H. TOPKIS, LEWIS A. KAPLAN and MOSES SILVERMAN, Paul, Weiss, Rifkind, Wharton and Garrison, 345 Park Avenue, New York, New York, 10022, on behalf of Respondent, British Oxygen Company, Ltd.

GEORGE J. WADE, R. BRUCE MacWHORTER and DANFORTH NEWCOMB, Shearman and Sterling, 53 Wall Street, New York, New York, 10005, on behalf of Respondent AIRCO, INC.

ROBERT N. SAYLER and HENRY SAYLER, Covington & Burling, 888 16th Street, N.W., Washington, D.C., on behalf of Respondent Air Products & Chemicals, Inc.

APPEARANCES: (Continued)

JACK HEALY, Counsel on behalf of Respondent, Air Products, R. D. #2, Allentown, Pennsylvania

E. A. DOMINIANNI and J. M. RHODES, Coudert Bros., 200 Park Avenue, New York, New York, 10017

JORDAN C. BAND, Ulmer, Berne, Laronge, Glickman & Curtis, Keith Building, Cleveland, Ohio, 44115, representing S. Michael Loveman.

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PROCEEDINGS

JUDGE BARNES: On the record.

MR. YOUNGWOOD: Complaint Counsel calls Dr. Albert Muller to the stand.

- -

ALBERT MULLER was thereupon called as a witness for the Commission and, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

MR. WOLLEN: My name is Wollen. I was here for one of the pre-trials.

Mr. Wade will not be here for the next few days and I will be filling his seat if not his shoes.

By Mr. Youngwood:

Q Please state your name and address for the record.

A Albert Muller, Stillhollow Road, Lebanon, New Jersey.

Q Will you tell us your educational background please?

A Very briefly, technical degrees from Rensselaer Polytechnic Institute including a doctorate from Harvard Business School.

Q In what line of endeavor are you presently engaged?

A I am a consultant.

Q What are your duties as a consultant?

A They vary, but basically this relates to two types of things. One is the evaluation of major projects which

involve the production of various materials, gasses, chemicals, metals, things of this nature.

Secondly, I do provide a technical audit service which a number of corporations have used in connection with their research and development efforts to improve the efficiency and output of that activity.

Q How long have you been a consultant?

A Since 1968.

Q Have you specialized in any particular areas?

A Chemicals, metals, gasses, this sort of thing.

My background was in those and I have continued to function in those areas.

Q What type of gasses did you specialize in?

A Industrial gasses.

Q Will you tell us your understanding of the term industrial gas, please?

A It is the manufacture, distribution and marketing of products that basically relate to the atmospheric gasses, oxygen, nitrogen, carbon dioxide is included, helium is included, hydrogen is included, basically atmospheric gasses plus those gasses which we get from the earth, let us say, or from combustion processes in the case of CO-2.

Q Have you authorized any articles in the field in which you specialize?

A Yes. I don't know how many, but there is a large

collection of them at various places.

Q What line of endeavor were you engaged prior to your being a consultant?

A I was working for the Air Reduction Company. I was a senior corporate officer responsibility for their technology, their research, if I can put it that way.

This involved building their plants, running their laboratories, generally providing the technical back-up to that business.

Q The phrases Air Reduction Company is synonymous --

A Now Airco.

Q Were you a vice president for Airco?

A Yes, I was.

JUDGE BARNES: For what period of time?

THE WITNESS: I believe a couple of years, three years.

JUDGE BARNES: Yes.

By Mr. Youngwood:

Q Prior to the position you held as vice president, can you tell us what other position or positions you might have held with Airco?

A Yes, I started in 1946 as a researcher in their laboratory and worked my way up through the technical side of the business. This included a number of different kinds of assignments both in the research organization and in the

line organization.

For example, I was at one time a vice president of their industrial gas division. At that time that division and their welding division were one. They are now split.

Q Dr. Muller, will you tell us, please, the names of some of the larger companies that you represented in your capacity as a consultant?

A Yes, Dupont, Hercules, Union Carbide, Food Machinery, several governments, very recently the Government of Iceland, International Harvester, Mobil, and then there were a string of smaller companies.

Q Did you also represent the British Oxygen Company?

A Yes.

MR. TOPKIS: Represent is not quite the right word but otherwise I don't mind.

THE WITNESS: I consulted for them.

By Mr. Youngwood:

Q Will you explain for us, please, the terms of your consultancy with British Oxygen?

MR. TOPKIS: I think those are written down in the document and the document is the best evidence and it is already in evidence.

By Mr. Youngwood:

Q Dr. Muller, I have before me a letter to you from the British Oxygen Company in which the terms of your consultancy

are set forth. It is stated in the letter that the consultancy would take effect as the result of a letter to you of April 2.

Does the letter accurately reflect the terms of your consultancy?

MR. TOPKIS: Well, of course it does.

THE WITNESS: Yes, this is it.

MR. TOPKIS: It is Exhibit CX-111 and it is in evidence.

By Mr. Youngwood: What duties were you to perform in your capacity as a consultant for the BOC?

MR. TOPKIS: Objection. This is all spelled out in the document. I don't mind hearing Dr. Muller reciting it but it is all in the document.

MR. YOUNGWOOD: I will withdraw it.

By Mr. Youngwood: What duties did you perform?

A There were basically two areas in which I was involved as it relates to BOC.

One was essentially a technical type of thing which related to their general research, development and engineering activity, and the purpose behind that was to review what they were doing and to see whether there wasn't some way to improve the output of this activity for them.

They had a large number of individual operating groups each of which had its own technical arm, and after a review

of that I felt they probably could get more mileage out of these technical efforts if there were some sort of a cross fertilization between them.

One of the things I did was review that and talk about it and make some recommendations.

The other thing related to the United States and North America in general. British Oxygen at that time was an international company; they still are. The U. S. and North America represented about 50 percent of the world's market and they were interested in becoming active in this market. They wanted to enter the market.

In the beginning of my work for them, we were essentially looking at little high technology businesses they could buy and hopefully operate profitably here.

Another consideration they were interested in taking this knowledge back to the U.K. or using it in other trading areas in which they did business.

For that reason, in the beginning, it was one of the types of things which related essentially to the higher technology businesses.

Later on, and this came after some difficult periods in BOC's management. Dr. Goldstein died, Nicol Gross died, the two people I talked about my consultancy in the beginning, and there was a change, a different attitude in the new management.

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Half way through my consultancy or toward the end of it certainly, a decision was made in terms of the U. S. market the thing to do was to constrict the activities and not emphasize high technology as much as the types of business they were in because they were anxious to make good management judgments and did situations in areas related to their ongoing business.

They feltthat, therefore, they should be looking at these kinds of activities rather than one of the higher technology areas that I had originally started them into.

It was very difficult, I might add, to get at that time an answer as to their interest in these high technology businesses because of the changing situation that existed in their management because of the deaths that occurred.

Q Dr. Muller, did you contact on behalf of BOC any firms in 1968 whose operations were in the industrial gas field?

A You are limited yourself --

MR. TOPKIS: It might help your Honor to know the time frame. It has not been established. Dr. Muller began for us in April '68 and terminated in April 1970. I thought that would help.

JUDGE BARNES: I did not know the date of the exhibit. It would help, Mr. Youngwood, to place a time frame on all of these activities.

MR. YOUNGWOOD: The letter to which I referred and which I showed Dr. Muller was a letter over the signature of C. A. B. Lewsley, the Secretary for British Oxygen Company dated April 25, 1968. I appreciate Mr. Topkis calling the dates of the consultancy to your attention.

By Mr. Youngwood:

Q Dr. Muller, I will repeat the question I had asked you.

Did you contact on behalf of BOC any firms in 1968 whose operations were in the industrial gas field?

A Mr. Youngwood, I am trying to recall and I honestly can't answer that question as it relates to 1968. I obviously did over the two years but I don't remember anything specific in 1968.

Q Dr. Muller, I would like to show you a document designated CX-18-A, 1968 consulting activity by Albert Muller. This document contains a list of companies which you contacted in 1968.

I offer the document to you for the purpose of refreshing your recollection.

A The answer is yes, I have them listed here so I obviously had to do it. I will stand corrected. I just did not recall that accurately. There are several here.

Q Will you state please first the names?

A Gardner Cryogenics in Bethlehem, and this of course was an interest on the part of BOC or should I say a potential

interest for helium.

MR. TOPKIS: The question calls for the names of the companies.

JUDGE BARNES: Just the names of the companies?

THE WITNESS: Cryonco in Denver, Cryogenic, Inc., New York, Cryogomagnetics, Denver, Gardner and Malaker Corporation.

Q Did you contact the Matheson Division of Will Ross?

A Yes, I did.

Q In 1968?

A Yes, I think that was about the time I did that. It happened shortly after the Will Ross acquired Matheson. I would say this was in it.

JUDGE BARNES: Was this one time Olin Matheson?

THE WITNESS: No, sir, Matheson Gas Company is a different company. Their business was specialty gasses if I can use that terminology. They were a distributor of laboratory gasses. They did not produce as a normal industrial gas company would produce but they distributed gasses with certified analyses. They had built a position I guess at that time which was probably number one in the industry.

By Mr. Youngwood:

Q Dr. Muller, you stated just a short time ago that there came a time at which you concentrated in areas in which they had a great deal of knowledge, areas in which

they had a technical and marketing expertise, I believe.

MR. TOPKIS: I don't believe that is what the witness said at all.

By Mr. Youngwood: Would you explain to us the areas in which you concentrated toward the end of your consultancy contract?

A May I step back and make a preliminary statement on that.

I told you that there was a difficult period in British Oxygen management which was occasioned by the deaths of some of their top people. The people I originally set up my consultancy with, Dr. Goldstein and Nicol Gross both died.

As a result of those deaths there were changes in British Oxygen's top management structure. Some of the things we talked about doing originally turned out to be things that they were not as much interested in the new management as the old.

The new management after it got established concentrated primarily on the businesses that they were in, and the stated reason to me for that was they wanted to be able to make good sound judgments about such activity, and they were not interested in the higher technology areas that I started out with.

Q Which businesses are these?

A British Oxygen was in the medical business, the indus-

trial gas business, the metal alloy business, the welding business, and they felt anything I did that related to those areas they could make a much better judgment on than they could in an area which was completely different.

Q Dr. Muller, I have before me a document entitled, "Guidelines to BOC group Activities in North America."

We have designated it as CX-29-A. It has been offered and received in evidence.

Was it through this document that the changes were made?

MR. TOPKIS: Objection, your Honor. This is a document which was prepared by the witness and by Mr. Perham who was at the time, I believe, President of Canox.

I think your Honor will have no difficulty in perceiving neither the witness for the President of Canox sets BOC's policy.

MR. YOUNGWOOD: I think I can show in a very short period of time that the President of Canox almost has as his prime function the search for activities and business opportunities in the United States and that if J. Perham indicated these would be guidelines for BOC group activities in North America, they were indeed such guidelines.

JUDGE BARNES: I don't think your question is very clear.

You said is this the document in which changes were

made.

I don't think the question is very clear.

By Mr. Youngwood:

Q Dr. Muller, what does this document mean to you?

MR. TOPKIS: Objection, your Honor. There are ways of asking about a document other than that. The document speaks for itself.

If the question is designed to go into how it was prepared --

JUDGE BARNES: Yes, how was it prepared?

THE WITNESS: Let me try to explain that.

During this period when the new management in BOC was getting established and solidlified, I was having difficulty in getting answers to various questions that I was posing to the BOC management.

Normally I would write a letter, I guess, to Leslie Smith and he was busy trying to get things straightened out in the company.

Obviously he did not have an opportunity to sit down and consider everything I was sending him to the exclusion of his other business. Allan Perham knew about my predicament. The two of us sat down and lacking some direction from BOC, we sort of prepared this as sort of a suggestion, if I can put it that way, to the BOC management for a method of proceeding from that time forward.

This document, I guess, was the result of several discussions I had with Allan Perham and it finally got boiled down to what is here.

Just adding one more thing, as far as I am concerned, it was generally accepted as a method of proceeding. This was a thing which was proposed, accepted and followed.

By Mr. Youngwood:

Q Did you in 1969 have occasion to contact Robert S. Johnson of Loeb Rhoades?

A Yes, I did.

Q Would you tell us the nature of any conversations you may have with him?

MR. TOPKIS: Is this with Mr. Johnson?

By Mr. Youngwood:

Q Would you tell us what it is you told Mr. Johnson?

A Basically he had learned that Chemetron which is one of the major producers of industrial gasses, equipment, et cetera, was available for sale.

Mr. Johnson was handling this matter and he was with Loeb Rhoades. To make a long story short, I went down to Wall Street and saw Bob.

As a result of talking with him about whether or not Chemetron could be acquired I called Mr. Smith, I guess it was the end of 1969, and informed him that this might be available.

I also told him that Mr. Johnson was going to be in the U.K. and set up, I believe, at the time, the opportunity for both of them to have lunch together.

I know there was a meeting at which time they discussed this.

MR. TOPKIS: I take it the witness was not present at this meeting so I would prefer he not discuss what was said.

THE WITNESS: I was not there. I was just mentioning that there was a meeting.

By Mr. Youngwood:

Q Did you contact Mr. Johnson on behalf of BOC?

A Yes, sir.

MR. TOPKIS: Objection.

THE WITNESS: I had no other reason to do it.

JUDGE BARNES: Was this subsequent to the meeting before or is there a time frame on this? Are you referring to your first contact with Mr. Johnson or some later contact?

THE WITNESS: I had only one meeting with Mr. Johnson down on Wall Street. We talked this thing over at some length. As a result of that what I said a few minutes ago was arranged.

I know for a fact from Mr. Johnson that he did meet with Mr. Smith and John Williams came over and talked to Mr. Gallagher, President of Chemetron, early in the year,

some time in January, about that time frame.

By Mr. Youngwood:

Q January of which year?

A I guess it would be 1970, Mr. Youngwood.

Q Dr. Muller, did you participate in a study undertaken by the British Oxygen Company of the industrial gas industry in the United States?

A If I qualify participate, I would say yes. I was involved in furnishing various information to Mr. Greenfield, Mr. Perham with respect to that subject.

Q Did you contact distributors in the United States?

A Yes.

MR. TOPKIS: Shouldn't we have the time established?

JUDGE BARNES: That would be helpful.

THE WITNESS: It was toward the end of my consultancy. I can't recall the exact dates.

MR. TOPKIS: It is spread all over the record. Can't we agree it was January and February 1970 and December of 1969 as well.

MR. YOUNGWOOD: We can agree the contacts which were made of distributors were no later than February 1970.

JUDGE BARNES: Did you contact distributors?

THE WITNESS: Yes.

By Mr. Youngwood:

Q Would you give us the names of the distributors con-

tacted?

A There was Middlesex, a distributor in Central Jersey, New Brunswick, Unex in New Jersey, Cryodyne in Bridgeport, Unibraze, a company in Cleveland whose name I can't recall now. Anyway, there were several.

Q Did you contact Gordon Duff?

A Mr. Youngwood, I can't recall if I did or did not.

Q Were these firms distributors of industrial gases?

A Yes, and welding equipment and the related distributor articles that are sold by such companies.

Q In the course of your consultancy did you introduce officials of the British Oxygen Company and the subsidiaries to these distributors?

A Yes, I did that.

Q Why did you contact the distributors?

MR. TOPKIS: Why?

MR. YOUNGWOOD: Yes, why.

THE WITNESS: We were looking at the industrial gas field. One of the things that was going on at the time was that the planning group in London was collecting various statistics and information on the industrial gas business. They were looking at producers, distributors, and what have you, to see where the pattern of profitability was the greatest if I can use that type of terminology.

At that particular juncture, the industrial gas business

as it related to major producers was not something you would write home about in terms of a wonderful investment.

The profitability and returns were low.

In looking at the total picture it was obvious that you should look at the distributors as well as the producers. Some of these distributors were enjoying a better return and profitability than the major producers at the time.

By Mr. Youngwood:

Q This was in early 1970?

A Yes, sir.

Q Do you have any reason to know if the profitability of these producers is higher?

MR. TOPKIS: Objection.

THE WITNESS: I just can't comment. I don't know.

By Mr. Youngwood:

Q Dr. Muller, I show you Complaint Counsel Exhibit CX-47-A which has been entered into evidence. Would you read the second paragraph. The date of the Exhibit is December 3, 1969.

JUDGE BARNES: Just read it to yourself, Doctor.

THE WITNESS: Yes.

By Mr. Youngwood:

Q This exhibit refers to a fundamental belief of the British Oxygen --

MR. TOPKIS: Objection. If we are going to have

reference to this exhibit, may I supply a copy to your Honor.

JUDGE BARNES: What is your question, Mr. Youngwood? Just don't read what is in the document. That is already in the record.

By Mr. Youngwood:

Q Did the study which was undertaken by the British Oxygen Company, to the best of your knowledge, change the long-term strategy stated in paragraph two of that letter?

MR. TOPKIS: Objection, your Honor.

JUDGE BARNES: May I have the question back, please.

(The question was read by the reporter.)

JUDGE BARNES: What is the basis of your objection, Mr. Topkis?

MR. TOPKIS: I can establish it on voir dire.

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VOIR DIRE

By Mr. Topkis:

Q Your consultancy terminated before the final decision?

A To the best of my recollection, yes. We were involved in furnishing information but I never saw the final product.

MR. TOPKIS: That does it, your Honor.

JUDGE BARNES: I think the question is improper. He has no foundation for answering what the long-term strategy was.

By Mr. Youngwood:

Q On what date was your consultancy terminated?

A I think the end of March, 1970.

MR. YOUNGWOOD: The Perham-Greenfield report is dated February 11, 1970.

MR. TOPKIS: The witness said he never saw it.

By Mr. Youngwood:

Q Did you continue to work for BOC after February 11, 1970?

A On a spot basis.

Q Can you testify -- and I would ask in this instance for a yes or no answer -- whether the British Oxygen Company retained an interest in entering into the United States' market?

A The answer to that is yes.

JUDGE BARNES: What is the basis of his knowledge? Did it arize out of your part-time consultancy duties with the BOC?

THE WITNESS: After my original contract terminated, I was asked to do certain things in addition.

Of course, the factual history of what has happened since would indicate that this also was true.

JUDGE BARNES: Reframe your question now, Mr. Youngwood.

MR. YOUNGWOOD: Are you referring to the question I had with respect to CX-37-A, your Honor?

JUDGE BARNES: Yes.

By Mr. Youngwood:

Q Dr. Muller, was the long-term strategy set forth on December 3, 1969 altered by the conclusion of the study undertaken by the British Oxygen Company?

MR. TOPKIS: Objection. I submit this witness could not possibly know the answer to that question on the basis of the foundation. He testified we boughtAirco and must have had an interest but further than that I suggest exploration would be limited.

JUDGE BARNES: I would permit did the long-term strategy change. There may have been many bases for continuing or changing.

By Mr. Youngwood:

Q Was the long term strategy referred to in the letter of December 3, 1969 changed at a date subsequent to that?

MR. TOPKIS: I would have no objection to this question being put to the witness and the problem will show what I have.

The question would be, Dr. Muller do you know whether the strategy of British Oxygen has changed since the date of this letter which has been marked CX-47-A. That question I would not object to.

JUDGE BARNES: All right.

By Mr. Youngwood:

Q Do you know or have reason to believe --

MR. TOPKIS: No. No.

JUDGE BARNES: Does he know?

By Mr. Youngwood:

Q Do you know whether the long-term strategy referred to in the letter of December 3, 1969 has been altered subsequent to that date?

A Mr. Youngwood that is a very difficult question for me to answer because obviously I am not privy to British Oxygen's thinking at that time.

MR. TOPKIS: I would --

JUDGE BARNES: He indicated he did not know but I don't believe he finished his answer.

THE WITNESS: As an outside observer watching what BOC has done since that time I don't think they have lost their interest. This is a personal belief of mine. It is not factually supported by anything I can pull out of the file and say this is British Oxygen policy.

By Mr. Youngwood:

Q Would you state the basis for your belief?

A They have made several acquisitions here in the United States since the termination of my arrangement with them. So I presume that the original intent which is stated in that

Exhibit was still of interest to them.

Obviously it was at the beginning because it was stated to me not once but many times and by many people.

JUDGE BARNES: Did you receive any information during your working with BOC which indicated a change?

THE WITNESS: No, I did not. At the end of my original arrangement with BOC, I think we had an understanding that if I ran into things that might be of interest to BOC I was perfectly free to refer to them for decision which I did on a couple of occasions.

As time went by and I became in other things this obviously dropped by the wayside as so much of these things do.

I cannot comment in fact that BOC has changed its mind about the fact that as an international company of North America is 50 percent of the world's market and they should therefore be in it.

This was part of the original discussions that I had with Mr. Hutchison, Dr. Gross and Dr. Goldstein. This is what I talked about when I joined them as a consultant.

By Mr. Youngwood:

Q Did you have occasion to have conversations with officials of the British Oxygen Company in February, 1970?

A Yes. At that time, I met with Leslie Smith.

MR. TOPKIS: 1970?

THE WITNESS: Yes, we talked about my consultancy and I was told they were concerned about their position in the upcoming common market.

Also they were concerned about the fact the terms of buying a U. S. company it was difficult to get the Bank of England to provide dollars for such purchases. They had decided, therefore, to change their priorities and emphasize the European picture. This did not mean and I was not told, therefore, they were cutting off their entire interest in North America.

In connection therewith, I think there is some correspondence in the file you subpoenaed from me which outlines a few basis for what you might call spot assignment.

By Mr. Youngwood:

Q Were these spot assignments to include a search for industrial acquisitions in the gas field.

MR. TOPKIS: Objection, as Dr. Muller has said his duties are set forth in writing.

MR. YOUNGWOOD: What is the basis of your objection?

MR. TOPKIS: That the best evidence is the best evidence.

Dr. Muller has just reminded Complaint Counsel that Complaint Counsel obtained Dr. Muller's files from Dr. Muller and he now possesses them.

Among those papers is a document between Dr. Muller and BOC relating to the spot assignments that Dr. Muller has spoken of and in describing how they should be undertaken, compensated and so on.

MR. YOUNGWOOD: I have no document which states specifically that Dr. Muller is going to continue to look for industrial gas companies.

However, I just don't see the pertinence of Mr. Topkis's objection.

JUDGE BARNES: If it does not say that, you can ask him if he had instructions otherwise to look for industrial gas companies.

THE WITNESS: No, I had no specific instructions. As I recall that to the best of my ability to bring that back into focus in my final arrangements with BOC, it was sort of left. If you run across something that is attractive and feel we should be interested in, please send it to us, we will review it and we will see if we should follow such a lead and do something about it.

There was no emphasis on gasses other metals or medical equipment or anything else. It was the broad field of BOC's interest. I had no specific assignment after my contract. This was an understanding which basically related to the fact that I was busy with other things and if I can use the terminology stumbled on to something without

having any directive to go look for it, I was certainly free to bring it to the attention of the management group in BOC.

By Mr. Youngwood:

Q Subsequent to the conversation to which you just referred, did you in fact uncover such an opportunity for the British Oxygen Company?

A I think, and again, to the best of my ability to recall, I think I sent a couple of small things over to London for consideration.

I remember one was a little company in the specialty graphite business called Ultracarbon. This was subsequently reviewed and the decision was reached they had no interest in this and I was so informed.

I think there may have been one or two others.

Q Did you subsequently uncover any such opportunity in the industrial gasses field?

A There was a carry-on with Gardner Cryogenics that related to helium. This resulted from some publicity with regard to Bill Gardner's situation, vis-avis carpenter steel or technology as it is now known.

They were not getting along and even though we had had some prior discussions with Gardner Cryogenics, Allan Perham and I and I forget who initiated what, we went back down to Reading and talked to Tom Stanton. I don't know if we talked to Basil Lanphear.

Originally I set up everything through Mr. Lamphear. Anyway, we went down there. Those discussions related to the helium situation.

The excuse, if I can use that word for going down there, was we learned at that time they might be interested in selling off their European helium business.

We went down there to discuss this. During the discussion it had broadened out into the whole picture of Gardner Cryogenics per se.

Again there are some reports and related information on that in the file. I don't know if they have been introduced into evidence but they are in the file.

Q Would you tell us, please, the dates on which these discussions occurred?

A Mr. Youngwood, you have me. I know it was -- I don't know. Maybe it was May of 1970.

Q It was after your consultancy was terminated?

A It might have been May or June. It was sometime toward the late spring or early summer.

Q Dr. Muller, I may have missed an answer that you gave. Would you repeat for us the nature of the conversations at the meetings held with officials from Gardner Cryogenics?

MR. TOPKIS: I take it there was one conversation. If we are going to have the details, shouldn't we know who the people were, who was present.

JUDGE BARNES: Yes, and the date.

MR. YOUNGWOOD: I will be happy first to lay the foundation that way.

By Mr. Youngwood:

Q Would you tell us first who attended?

A Allan Perham and I went down there from the BOC standpoint.

JUDGE BARNES: This is two meetings?

THE WITNESS: There were two separate meetings separated by some months.

JUDGE BARNES: Are you talking about the first meeting?

THE WITNESS: I think we saw the same people. The key man from Carpenter Technology was Tom Stanton, one of their vice presidents and officers. I had had discussions with Mr. Lanphear whom I knew personally for many, many years and he delegated this discussion responsibility to Mr. Stanton.

I don't know. I think there might have been one or two other people from Carpenter Technology but I can't recall their names. I don't think Mr. Lanphear ever met with us.

I discussed this thing with him on the phone. He delegated the responsibility for the further discussions on a face to face basis with Mr. Stanton.

Q Have you established an approximate date for the first meeting?

A Mr. Youngwood, I really can't recall, but there are documents which have the dates on them.

MR. YOUNGWOOD: I do not have the documents before me but perhaps it would suffice to say we are referring to the first meeting with Mr. Stanton which was attended by Dr. Muller and Dr. Perham.

MR. TOPKIS: I think Mr. Perham has just been promoted. We pick uphonorary doctorates in all fashions.

JUDGE BARNES: Mr. Perham.

By Mr. Youngwood:

Q Would you tell us please the nature of the conversations at the first meeting?

A The first meeting was set up as a result of discussions I had with Bill Gardner's brother at one of the prior Cryogenics Conferences in Cleveland.

His name is John Gardner. There are two brothers.

At that particular juncture, troubles were developing in the relationships between the Gardner Brothers and Carpenter Technology. I am not privy to what those difficulties were.

Speculating on them, I think the Carpenter people felt the Gardners had made some allegations and statements in connection with their business which they could not

support and, beyond that, the business at that time was not going very well.

There were difficulties with Phillips Petroleum with whom they had an agreement on helium production and purification. All of these things led to a situation where they were looking for ways out of it.

After these discussions, Allan Perham and I went down to see them. We prepared a report on the subject which report was sent over to London, I believe, and which is in the file.

Bill Gardner subsequently went over to London and I think he met with the management group in BOC.

To my knowledge nothing came off that other than they had a discussion. That was the first meeting, the first contact.

Q The year?

A I guess it was 1970 but, again, the date is on the report.

Q But it was subsequent to the termination of your consultancy.

A No, the first time was when I was employed as a consultant to BOC. Subsequent to that there was a second meeting which involved Carpenter Technology but at that point in time, as I recall it, Bill Gardner has already left the organization and that discussion, the second dis-

cussion I am referring to now, was with the Carpenter people on the direct basis without Gardner being involved.

Q What was the substance of the conversation?

A The reason we went down there, we had had information come in which would indicate they wished to sell off their helium distribution business in Europe which I think was based in Belgium.

When we went down there we went from that specific subject to the broader subject do you, Carpenter, want to stay in helium business and is this whole thing for sale?

We went down there again and this was one of the spot assignments I was involved with after my original consultancy agreement expired.

To the best of my knowledge, nothing came of that either.

Q As I understand your testimony, are you saying that Mr. Perham and you inquired of Mr. Stanton as to whether Gardner Cryogenics was for sale?

MR. TOPKIS: This visit is the subject of a most detailed report which, as Dr. Muller quite accurately states, a copy has been supplied to Commission Counsel. They have offered that document in evidence as CX-241.

I believe they have subsequently withdrawn it, for whatever reason, I don't know, but I respectfully submit that report prepared contemporaneously and possessed, if you will, and relied upon by Dr. Muller is the best

evidence of what took place there.

THE WITNESS: That was the first meeting. That report is on the first meeting.

MR. TOPKIS: June 1, 1970.

THE WITNESS: If it is June 1, 1970, that is the second meeting. There are two reports.

Just let me see if I can put this in perspective.

JUDGE BARNES: Just a minute.

MR. YOUNGWOOD: Your Honor, I might comment one reason it was withdrawn is that the information that we have is that it is not accurate. We have that information from more than one source.

MR. TOPKIS: I don't know that could possibly be.

JUDGE BARNES: I think we ought to at least show the witness the exhibit.

MR. YOUNGWOOD: I would like to show this to your Honor, if I may, and refer your Honor to the name of the man who prepared the report.

MR. TOPKIS: It was prepared by Allan Perham and it was sent to Dr. Muller.

JUDGE BARNES: This is not Dr. Muller's report.

MR. THURMAN: I have never heard such things going on in this trial, you can't ask a witness about his direct presentation. You certainly can expand on a document.

I don't think this is the Rules of Evidence at all that you are restricted in what you can ask a witness. I think we ought to get a ruling on that because Mr. Topkis keeps referring to what we can ask and what we can't.

If this is going on through this trial I would like a ruling. We can certainly ask a witness what he knows. Maybe something is inaccurate in a document. We don't have to introduce documents if they don't want to. That is just as good.

JUDGE BARNES: I think we should know what type of document we are talking about, who prepared it, whether there is a contract or agreement.

There is the best evidence or parol evidence rule. We should have the document in front of the witness when we question him about specific things in a document.

MR. THURMAN: Mr. Topkis keeps running our case for us. He has a right of cross examination and a right for defense. This was not prepared by this gentleman. If he wants to introduce it on defense to offset what this witness has to say that is part of his case but I resent defense counsel trying to run our case.

JUDGE BARNES: Let's not have any resentment. Sit down now.

Mr. Topkis is going to make an objection and I will rule. If he calls attention to the fact that Dr. Muller

did not prepare this, we can go on. We don't need long speeches.

MR. THURMAN: I have not seen Mr. Topkis make a precise objection.

JUDGE BARNES: What is your next question? CX-241 is not in evidence.

MR. YOUNGWOOD: I asked Dr. Muller whether Mr. Perham and he asked Mr. Cranton whether Gardner Cryogenics was for sale.

JUDGE BARNES: He can answer the question.

THE WITNESS: I think the answer to that is yes. I asked him that question either by telephone or directly. I am sure it came up in our discussion but to the best of my recollection the answer is yes.

By Mr. Youngwood:

Q You are certain it came up in the discussion at the second meeting?

A Yes.

Q Was BOC interested in acquiring Gardner Cryogenics?

MR. TOPKIS: Objection.

By Mr. Youngwood:

Q To the best of your knowledge.

MR. TOPKIS: The witness must know or he does not know. But a foundation would have to be laid.

JUDGE BARNES: Lay a foundation.

By Mr. Youngwood:

Q Do you have any reason to believe BOC was interested in the acquisition of Gardner?

A Yes, they retained me on the spot. I contacted Gardner Cryogenics and Allan Perham and I went down to talk to them. I did not do it for my own interest.

Q This is the reason they obtained you on a spot basis.

JUDGE BARNES: I don't think we need that question. When you went down to see Carpenter Technology you were going on behalf of BOC?

THE WITNESS: Absolutely.

By Mr. Youngwood:

Q Dr. Muller, based on your experience in the industry and as a former consultant to BOC, did you believe prior to the Airco acquisition in 1973 that the British Oxygen Company would enter the United States industrial gas market?

MR. TOPKIS: Objection.

JUDGE BARNES: What is the basis of your objection?

MR. TOPKIS: Well, first, I would like to explore how extensively the witness has been involved in the industrial gas business, and I can do that with a couple of quick questions on voir dire if I may be allowed.

Second, the witness has not been engaged in the industrial gases business according to his testimony for about four years now. So his expectations or thoughts are based on

information that is somewhat out of date. He may have kept up his hand to a degree but certainly he is not someone active in the business today. I don't mean that to cast any shadow on him.

JUDGE BARNES: Dr. Muller, as a result of your employment with BOC both as a consultant and later on a spot basis up until the end of your employment with BOC, did you believe BOC was a potential entrant into the industrial gas business in the United States market?

THE WITNESS: I just can't answer that question. I don't know what BOC was thinking. Certainly BOC had the capability if they desired to enter the industrial gas picture. That is all I can say on that subject.

Obviously I am not privy to what their thinking was in the BOC management. There is no way I knew what was going on there subsequent to mid-1970.

Now, with regard to the specific that Mr. Topkis just raised, I am president of a company called Helium Cryogenics, and I am in the industrial gas business today.

I do know something about it, as much as anybody in this room. It is a gratuitous statement, but I think I do.

JUDGE BARNES: On that basis then, as of December 1973 and prior to, did you believe BOC was a potential entrant into the industrial gas business in the United States gas market?

THE WITNESS: In my own mind, I have always thought they were, but this is just speculation on my part. It is not supported by fact because I have no knowledge of what they were thinking.

I might add one more thing.

In all my relationship with BOC starting with the negotiation of my original contract, there was a clear and complete understanding that anything that related to Air Reduction I would disqualify myself from.

Whatever went on between Air Reduction and BOC was done on the basis of direct contact between them because I would not participate because of my association for 20-some years with Air Reduction and my general involvement in their business.

This was just a fair way of doing business. There was no question about that situation.

JUDGE BARNES: Let's have another question now.

By Mr. Youngwood:

Q Dr. Muller, I have a slight bit of difficulty fully understanding your response to his Honor's question.

I would like to ask a question which can make clear to me what your thoughts are with respect to the entry or possible entry, potential entry in December 1973 prior to the acquisition of Airco of BOC into the industrial gas field in the United States.

MR. TOPKIS: Objection. I think your Honor just asked that question more tersely.

JUDGE BARNES: This is background to the question. You have not phrased the question yet, have you?

MR. YOUNGWOOD: Your Honor, I had a little bit of difficulty actually understanding Dr. Muller's response.

JUDGE BARNES: You said that. Now what is your question?

By Mr. Youngwood:

Q I would like to know, based on your familiarity with the industries, it is your opinion that the British Oxygen Company was a potential entrant, would have entered into the industrial gas field in the United States in 1970 as of the date 1973?

MR. TOPKIS: Isn't that the question your Honor just asked?

JUDGE BARNES: It may be a little bit different but basically it is the same question.

What is your answer?

THE WITNESS: My own speculation is yes but I have no direct supportable knowledge that BOC was intending to do that. I have just had no contact with them since June of 1970.

MR. WOLLEN: I object. I think the question has been answered and the witness has said all he is doing is

speculating.

JUDGE BARNES: He said he had no direct knowledge.

THE WITNESS: That is correct.

By Mr. Youngwood:

Q Dr. Muller, you stated it is your belief that BOC was a potential entrant. How did you consider that we might enter?

A Mr. Youngwood, I think --

MR. TOPKIS: The witness said it was his speculation that BOC would enter.

JUDGE BARNES: How did you speculate they might enter?

THE WITNESS: At the time I terminated my activities with BOC, we were looking at several different things. Obviously, we had considered producers.

From a personal knowledge I know that discussions were held with Mr. Loveman for example of Burdett in Cleveland. It certainly was not an attractive situation but the subject was broached.

We contacted the distributors as another way of getting in. We had had many discussions that one of the other major world companies producing gasses had come into the United States market and they used a technique which involved buying up, if I can use that terminology, regional producers.

All of these things were obviously known to British

Oxygen or anybody else who was interested in the industrial gas field.

The question constantly before the house, if I can, again, put it that way, was whether or not it was worth while to get into this business from the standpoint of return, from the standpoint of growth and everything else.

Back in those days when I was doing this work, the industrial gas business was not exactly a ball of fire in terms of another industrial endeavor.

The major producers were having a difficult time with return on investment or return on capital employed, either way; it was a situation where, quite frankly, if I had to put my money on the line at the time, I would not have done it.

Perhaps that situation has changed.

By Mr. Youngwood:

Q Dr. Muller, based upon your familiarity with these industries, was it your opinion that BOC posed a substantial threat to the major United States companies in these fields as one of the most likely potential entrants on an average scale in the industrial medical gas, equipment, ferro alloys and cryogenics hardware in this country.

MR. TOPKIS: I think I might have heard a more leading question than that but not in the court room.

By Mr. Youngwood:

Q Do you recall having made a statement of the nature I have just read?

MR. TOPKIS: I persist in my objection. My friend is apparently trying to read to Dr. Muller something which Dr. Muller wrote and asking him if he meant it. That is not proper examination.

JUDGE BARNES: Rephrase your question. Cover one market or one industry at a time. I believe you have already asked him about industrial gas, haven't you?

MR. YOUNGWOOD: I think I might have phrased it differently. It is conceivable Dr. Muller's response might have been because I did not ask if they posed a substantial threat to the major United States companies in this field.

THE WITNESS: Obviously if a company --

MR. TOPKIS: Objection. What is this word threat?

JUDGE BARNES: Can't you rephrase the question? It seems to me that would be much farther removed from a substantial entrant, a substantial threat. It is quite a burden.

JUDGE BARNES: Dr. Muller, I would like to ask you one more question.

You testified that you had familiarty with the long-range plans of BOC in the North American market.

THE WITNESS: As they existed in that period of

time.

JUDGE BARNES: Through the time when you ended your part-time consultation, and you had discussed with BOC officials their planning. You had discussed with them their interest in the United States industrial gas market.

You had contacted on their behalf distributors. You had contacted producers of industrial gas. You contacted Carpenter Technology or Gardner Cryogenics twice.

THE WITNESS: That was the helium business.

JUDGE BARNES: But was it your expectation during this period and as of June 1970 that British Oxygen would enter the United States industrial gas market at some time in the future?

THE WITNESS: Your Honor, I can't answer that because the decision whether or not --

JUDGE BARNES: You had an expectation?

THE WITNESS: I had an expectation that if the numbers came out right and if the opportunity afforded itself that they would enter the market. But, as I think I also indicated in my earlier testimony, at that particular point in time the industrial gas business was not a good business. It was very difficult to achieve a level of profitability and return to make a company grow without deluding its regular earnings. There was an open question on this all the time as to whether industrial gases were something that

they wanted to get into.

This hearing, of course, is concentrating I think on industrial gasses. As far as I am concerned, my assignment priority-wise certainly did not put industrial gasses number one on the list. We were talking about medical business, we were talking about metals and equipment, vacuum equipment, that whole technology and we were trying to find things which fit the pattern of BOC's interests in the U.K. so that their management could make sound decisions with respect to these businesses based on their experience.

I had no knowledge, I had no feel that the industrial gasses was uppermost in their mind.

As a matter of fact the medical business in the vacuum area was certainly at least in my assignments given equal priority. There is no question about that.

Now, BOC --

JUDGE BARNES: I believe you have answered my question.

MR. YOUNGWOOD: May we have a five minute recess, your Honor. We are almost finished with this witness.

JUDGE BARNES: We will take a ten minute recess.

(A short recess was taken.)

MR. THURMAN: Before Mr. Youngwood continues with direct examination, Mr. Topkis and AIRCO's respondents cross examination, we would like to move for sequestering the witnesses who are going to testify in this case. We move to sequester witnesses.

There have been many prospective witnesses sitting out here in these proceedings, and we do not believe they should be in the room.

Secondly, Mr. Topkis is saying we have to move to New York to put on his part of the case. Most of the BOC people who are going to testify are here in Washington, so we see no reason to move this case to New York for defense.

JUDGE BARNES: That is a different question.

MR. TOPKIS: Of course these people are here. They are here in their capacity as executives vitally concerned in the outcome of this litigation. I think they have every right to be here.

Leaving that aside, as potential witnesses, I cannot imagine their watching Dr. Muller's testimony would be of any consequence to them. Nevertheless, his testimony is being recorded and it is being obtained on a daily basis. I assure your Honor once the BOC executives leave here, we are going to be sending them daily copies of the transcript because of their continuing interest so they are going to know what Dr. Muller said before they testify. So what is the point of

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sequestration? In short, why send them out into the rain?

MR. THURMAN: In the first place, if they are going to be a witness and sequestered, they should not get transcripts. Secondly, I think they are allowed one official from each respondent to be present.

JUDGE BARNES: I am not going to exclude any official of the respondents from the hearing room. Other witnesses will not be permitted in until after their testimony. Is that satisfactory?

MR. TOPKIS: Yes. I may say Mr. Perham of Canox is not an official of BOC, but he is an officer in a wholly owned subsidiary.

JUDGE BARNES: He may stay.

The question of New York has been settled unless respondents want a change. I would prefer to stay in Washington.

MR. TOPKIS: I will take this into consideration and advise your Honor subsequently.

By Mr. Youngwood:

Q Dr. Mu , I show you complaint counsel proposed Exhibit CX 193A. Do you recognize that document?

A Yes, I do.

Q Did you sign the document?

A Yes, I did.

Q Did you sign the document under seal?

A I believe so, yes.

MR. YOUNGWOOD: Your Honor, complaint counsel offers Exhibit 193A into evidence.

MR. TOPKIS: If your Honor please, we object and I think your Honor will see the basis of our objection upon reading the description of the document.

JUDGE BARNES: It is an affidavit.

What is the purpose of this offer?

MR. YOUNGWOOD: Your Honor, this is an affidavit signed by Dr. Muller on December 14, 1973 in which statements that he made are substantially in conflict with statements that are made here today.

JUDGE BARNES: The way to use that exhibit, if you wish, is not to offer it into evidence, but use it as the basis for questioning. Ask him did he on such and such a day make such and such a statement and call his attention to what he has said here this morning and find out if there is any inconsistency.

MR. YOUNGWOOD: This document was not prepared for us. This is a document prepared by Dr. Muller on a particular date. The respondents do have ample opportunity to cross examine him on any statements made in this particular document as well as any statements made here today.

JUDGE BARNES: This is for other litigation.

MR. YOUNGWOOD: It has not been prepared for us. It is a document Dr. Muller identified as the document he signed

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on December 14th in the course of other litigation.

JUDGE BARNES: Still the proper way to use this is to question him. This is previously sworn to testimony and if it differs from what he said here today you may question him using this as a basis, but it is not receivable as an exhibit, at least not at this point.

MR. TOPKIS: If counsel want to move to strike all of Dr. Muller's testimony and excuse him at this point, I suppose they could do so. He is their witness. What are they doing, impeaching him?

JUDGE BARNES: It can be done if that is what they want to do.

MR. YOUNGWOOD: You are indicating you will not accept them --

JUDGE BARNES: Not as an exhibit at this point. You may use it as a basis for questioning Dr. Muller. That is a sworn statement that he made earlier. If it is inconsistent with what he said here today, you can use it as a basis for questioning him.

By Mr. Youngwood:

Q Dr. Muller, do you believe that the British Oxygen Company in 1973, December, 1973 exerted an influence upon competitive decisions which may have been made by the major industrial gas companies in the United States?

MR. TOPKIS: Objection, your Honor. We have had the

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people most expert on that subject testify over and over again already in this courtroom. Those are the people who made the decisions. I don't believe Dr. Muller, with all due respect for him, is in a better position to offer better evidence to this court than they.

JUDGE BARNES: Dr. Muller indicated that he had an interest in the industrial gas business. He owns a company at the present time; is that correct?

THE WITNESS: That is correct.

MR. TOPKIS: In helium.

JUDGE BARNES: That is industrial gas.

I will permit him to answer it.

MR. YOUNGWOOD: Would the reporter read the question back.

(The question was read by the reporter.)

MR. TOPKIS: I object. I want to withdraw my objection if the question is limited to whether Dr. Muller ever made a decision in or about December 1973 that was affected by the possible entry of BOC. He can't read the mind of other people, your Honor. He can certainly tell us what he felt.

MR. YOUNGWOOD: I am asking him his belief as a man totally familiar with the industry who has been in the industry for many, many years.

JUDGE BARNES: I do not believe he is that familiar with it. I don't believe you brought that out.

By Mr. Youngwood:

Q Dr. Muller --

JUDGE BARNES: That is correct. He was with Airco.

MR. YOUNGWOOD: I was about to ask him the positions he held with Airco and whether as a result of the president of the Industrial Gasses Division he might be able to answer a question of that nature.

JUDGE BARNES: He may answer.

VOIR DIRE

By Mr. Topkis:

Q Dr. Muller, in your tenure with Air Reduction while you were with it, you were not responsible for marketing or operations at any time, were you?

A No, sir.

MR. TOPKIS: Your Honor, I press my objection.

By Mr. Youngwood:

Q What were your duties as president?

A I was a vice president of that organization. I handled all their technical problems, built their plants at the time. I was obviously familiar with the marketing side of it because large industrial gas plants are usually built on the basis of contracted accounts for a long-term supply of 15 years or so.

I was not only aware, but part of the decision-making process on that type of thing.

Now, I did not have line responsibility for marketing. I

was essentially a technical man. I was a member of the corporate operating committee where all this kind of thing was reviewed. This was later on when I was an officer of the parent corporation. Certainly I knew what was going on in the sense that I was a daily participant in the activities of the corporation.

MR. TOPKIS: Your Honor, I repeat I don't object to asking Dr. Muller whether he has made any decisions based upon his possible entry of BOC, but that is his business and the helium business. But as to anything else, how can his opinion be of value when we have had the people of the major industrial gas gas companies come in to this court room and tell your Honor what they did and did not do.

His opinion of what they might have done is not better evidence. In conclusion, on the best evidence rule, I press my objection to his testifying about what major figures in the industry might have done. His opinion is not worth what their actions are.

MR. YOUNGWOOD: Your Honor, I think you can easily appreciate the reluctance some of these gentlemen might have had --

JUDGE BARNES: I am interested in what Dr. Muller is going to say, not what the other gentlemen have said. I feel that Dr. Muller is an expert in the industrial gas business in the United States and I will permit him to answer that question

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which is an opinion question.

THE WITNESS: Let me first confine my comment to my own personal situation in helium cryogenics.

Starting, I guess, a year ago at this point in time we made a proposal to the British Oxygen Company to supply them with helium.

JUDGE BARNES: In the United States?

THE WITNESS: No, to UK. We were going to ship it to Europe and then transship it to the UK.

If we had proceeded with that on the basis of a contract award we would have expanded our facilities of western helium and would have gone into the helium business more deeply than we are in today.

When I learned that BOC and Airco were discussing the possible acquisition of Airco by BOC, obviously I knew I was not going to get the helium business. Therefore, we curtailed our plans for expansion of our own helium business. That is a fact that would happen to me as a result of this particular situation. As a matter of fact, none of the information relating to this potential supply of helium ever mentioned the fact that Airco and BOC were holding separate and private negotiations with regard to the acquisition of their stock interest.

It sort of perturbed me, I might add, because I don't think it was absolutely honest. If the thing could have been turned off that way, I would have gone away, but we made

extensive plans, did engineering designs and replaced orders for liquid transport equipment, generally got our position pretty well established with regard to the possibility of supplying a large customer like BOC.

It fell through. No complete explanation was ever offered, but I just assumed because of the situation between BOC and Airco this was the reason. It is a perfectly logical reason, incidentally.

I don't have any other feeling about it.

But it did affect me personally.

JUDGE BARNES: Now we are interested in your opinion about the industry generally.

THE WITNESS: In connection with that I was retained by Curtis Wright in connection with their offer of tender stock. In the course of reviewing some of the things they were interested in with respect to Air Reduction, it obviously came out that had BOC chosen to enter this market directly, it would have affected the position of all the other gas companies in the United States. They had all of the capability in terms of background in marketing, production, and they had the financial resources to do it.

They chose rather than going into it directly to acquire an equity position in Air Reduction which I think has been the pattern of BOC's normal overseas type venture. They purchased substantial equity positions in companies of various

types all over the world. This has been their pattern.

JUDGE BARNES: I think that is a sufficient answer to the question.

THE WITNESS: When any organization --

JUDGE BARNES: No other comment is necessary.

MR. YOUNGWOOD: Complaint counsel has no further questions.

CROSS EXAMINATION

By Mr. Topkis:

Q Dr. Muller, let's start if we may going back to your meeting in June of 1970 with some people at Carpenter in connection with Gardner Cryogentics. Do you remember your testimony about that meeting?

A Yes, I do.

Q I am going to show you a three-page memorandum dated May 27, 1970. Before we get to that, Doctor, your files were subpoenaed by complaint counsel.

A Yes, sir.

Q When did that happen?

A Two or three months ago, Mr. Topkis. I don't recall the exact date that I got the subpoena, but there is a subpoena for it.

Q There was a subpoena issued for your files?

A That is correct.

Q How many subpoenas?

A I have received two so far, one for my files and one for discussions with the FTC staff.

Q One for discussions with complaint counsel?

A And one to come to this hearing.

Q You have received three in all then?

A No, two.

Q The one for your files was two or three months ago?

A To the best of my recollection, about that time.

MR. TOPKIS: Your Honor, I ask about this because we were not aware of the issuance of any subpoena to Dr. Muller for his files. I don't believe your Honor signed any such subpoena.

In consequence, I wonder how a subpoena came to be issued to this witness.

MR. YOUNGWOOD: Your Honor, my recollection of this matter is that the subpoena was issued prior to the issuance of the complaint and, therefore, of course, Your Honor would not have had occasion to sign such subpoena.

MR. TOPKIS: Pursuant to what authority, might I inquire, was a subpoena issued?

JUDGE BARNES: Was that an investigational subpoena?

MR. YOUNGWOOD: Yes, an investigational subpoena.

MR. TOPKIS: Was this the industrial gasses investigation?

MR. YOUNGWOOD: I am not sure I understand the

relevance or materiality of these questions as they relate to Dr. Muller at all. Perhaps we could discuss this at a later time or off the record.

JUDGE BARNES: I think these are general questions such as when the subpoena was issued. I assume it was issued by an official of the Commission who had authority under the industrial gas investigation, the same as the subpoena served on Dr. DeWin; is that correct?

MR. YOUNGWOOD: That is correct.

MR. TOPKIS: I would like very much to know whether that subpoena was issued at a time when this complaint was alive. If it was, it seems to me that subpoena was issued improperly.

JUDGE BARNES: He said it was before the complaint was issued.

MR. YOUNGWOOD: It was before the complaint issued.

MR. TOPKIS: I would like to see a copy of it.

JUDGE BARNES: I would like to see a copy, too.

MR. YOUNGWOOD: I would be happy to furnish a copy, but I do not have a copy with me at this time.

JUDGE BARNES: Can you approximate the date?

MR. YOUNGWOOD: I would feel relatively certain the subpoena was issued in January.

MR. TOPKIS: Your Honor will recall at the prehearing conference held before your Honor on April 17, 1974 counsel

supporting the complaint, and it was Mr. Thurman and I, quoting at page 103, "I think I have stated this before and I hope to make it clear that this industry-wide investigation has nothing to do with this case whatsoever."

MR. YOUNGWOOD: Don't you think --

MR. TOPKIS: If I may finish, please. And those remarks, by the way, were made in an effort to defeat us getting some information that came to complaint counsel in the course of the industry-wide investigation.

It now turns out at best information obtained in the industry-wide investigation unknown to us was obtained from Dr. Muller and used in this case. That is the very problem I sought to address myself to before your Honor on those subpoenas.

At the moment, all I need is the date of the subpoena I don't need it right now. It does not depend on keeping Dr. Muller waiting on the witness stand.

MR. THURMAN: I made that statement. That statement is still true. This subpoena was issued when we were investigating this acquisition. This was not taken from the industry-wide files. These things are ex parte subpoenas. I think even subpoenas issued here can be ex parte. I have had many issued by respondent and complaint counsel. This was issued for this proceeding.

JUDGE BARNES: The subpoena was issued under the industrial gas investigation and I would assume that the merger

investigation was a part of and grew out of the industrial gas investigation and that you are using material you obtained during the industrial gas investigation to try this law suit.

MR. THURMAN: It is not true. We are using the same number, but it is the same as we subpoenaed information fro. them during investigational hearings for this merger.

True, it had the same merger, but it was not for that purpose and it was after this merger and we are investigating that and it has nothing to do with the industry-wide investigation. We have not used any documents received under that industry-wide investigation.

JUDGE BARNES: Let's assume the Commission decided not to issue a complaint challenging the merger, then those files would have become part of your files.

MR. THURMAN: The answer to your question is no.

JUDGE BARNES: I don't see the point. Mr. Topkis, what is your point? I did not sign the subpoena. I assume at this point it was issued before the complaint.

MR. TOPKIS: If this were the case, I would have nothing further to say.

JUDGE BARNES: We will get a date on the subpoena this afternoon, if possible, and the name of the person who signed it.

MR. YOUNGWOOD: The name of the person was Robert E. Linquist, Assistant Director of the Bureau of Competition. I

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would comment also I don't believe any of the documents we have introduced were not given to us from the British Oxygen Company.

MR. TOPKIS: That is absurd. The documents are from Dr. Muller's files.

JUDGE BARNES: Copies of these did not come from your files?

MR. TOPKIS: No, from your files.

MR. YOUNGWOOD: We are introducing documents that you did not have in your files despite the fact that they might have come from British Oxygen Company. I would wonder then why those documents weren't turned over.

MR. TOPKIS: Because we did not have them.

MR. YOUNGWOOD: That is my next question.

MR. TOPKIS: Maybe because we don't keep everything. There are bunches that came from Dr. Muller's files. It is certainly true they were used.

JUDGE BARNES: Let's go one step further and see if it is not true that any of the documents that complaint counsel has introduced, copies at one time were in the possession or communications from BOC I take it.

MR. TOPKIS: They were documents sent from or to Dr. Muller that never came to our attention. There are a number of such documents offered by complaint counsel. I would be delighted to check on it.

In deference to the rule my friends imposed on me, I must now call for Jencks material.

MR. YOUNGWOOD: I would state that we have no verbatim notes. There was no verbatim interview.

JUDGE BARNES: Might you have some letters signed by Dr. Muller?

MR. YOUNGWOOD: Your Honor, I presume that it is possible that Dr. Muller did send to us a cover letter with documents which he furnished pursuant to the subpoena. If he did, and I do not know if he did, but if he did we do not have a copy of that letter with us, but I can tell you there was absolutely nothing substantive in it, or anything that I remember of a substantive nature. I can show you notes which we took of a meeting which was attended by Dr. Reck and myself with Dr. Muller. I think you will see they are hardly verbatim.

JUDGE BARNES: Are these notes Dr. Reck's as well as yours?

MR. YOUNGWOOD: Those that are ledgible are Dr. Reck's notes.

JUDGE BARNES: These are just attorney notes and are not verbatim recordations of what the witness said.

By Mr. Topkis:

Q Just in support of my earlier statement, Dr. Muller, who is John D. Simpson?

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A He is a man who is engaged in the acquisition field.

Q Not connected with BOC?

A No, he is not connected with BOC at all.

Q That is all I need.

MR. TOPKIS: Your Honor, Complaint Exhibit 30 is a letter from John D. Simpson to Mr. Sam Garvin which has been received in evidence. It was tendered and withdrawn, but that is a document that came from Dr. Muller's files which we had never seen, for example, and we will find them.

By Mr. Topkis:

Q Going back to the matter of your conversation, the second visit that you made to Carpenter or Gardner Cryogentics. It is the same physical location?

A Yes, it is Reading.

Q Before that second meeting in which you participated with Mr. Perham, you had a meeting with Mr. Lanfear and Mr. Stanton on May 26 in Reading; isn't that right?

A I believe that is correct. Certainly I had telephone discussions and I saw them.

Q You then called Miss Payshak.

A Mr. Perham's secretary.

Q Right.

A Right.

Q I am going to show you a three-page memorandum and ask you whether this memorandum, and please ignore the bottom sheet

for the moment, is a memorandum that is true and accurate memorandum of the conversation between you and Miss Payshak on that occasion.

MR. YOUNGWOOD: May we have reference to the memorandum to which you refer?

MR. TOPKIS: Sure. It is a document dated May 27, 1970, 3:15, memorandum of phone call from Dr. A. Muller.

MR. THURMAN: Let's see it before the witness sees it

MR. TOPKIS: All right.

MR. YOUNGWOOD: Your Honor, the document we have just been furnished is information taken by Miss Payshak from Mr. Perham --

MR. TOPKIS: No, from Dr. Muller.

MR. YOUNGWOOD: It says memorandum of a phone call from Dr. Muller, but the information was taken by Miss Payshak who is apparently Mr. Perham's secretary, and she apparently is reporting what Mr. Perham said Dr. Muller said.

MR. TOPKIS: No, that is not true. Read it. It is Commission Exhibit 238 which has been withdrawn. I think it is 238. In any event, Commission counsel has copies of it for weeks.

MR. YOUNGWOOD: I don't understand on what basis or what right would he have to show the witness something which apparently has been written down third or fourth-hand.

JUDGE BARNES: I think that is correct. This is not

a document that the witness wrote or is familiar with. It can be used for questioning him, but is it proper to show it to the witness?

MR. TOPKIS: The document is not his document, your Honor. It purports to be a recording. It is headed "Memorandum of telephone call from Dr. A. Muller." It reads, "Info taken for Mr. Perham."

We just heard the Doctor testify he called Miss Payshak to deliver a report to Mr. Perham and I want to ask him if it is the substance of the report. It has the advantage of being a contemporaneous recordation of that. If he says it is inaccurate, we throw it away or don't push it. The quick way, rather than asking every detail since he testified about this subject matter, is to ask him if this is an accurate report.

MR. YOUNGWOOD: May I suggest Mr. Topkis put Miss Payshak on the stand.

MR. TOPKIS: I want to hear what he said.

JUDGE BARNES: I don't think it is proper to show this document to the witness. You may use it for questioning.

By Mr. Topkis:

Q Dr. Muller, at your meeting with Mr. Lanfear and Mr. Stanton, according to this memorandum, such a meeting was held. Does that refresh your recollection?

A Yes, I believe I got together with them prior to the time

A 1627

Allan and I drove down to Reading. That part I remember.

Q The note continues, "The purpose of the meeting was to discuss the current situation of Gardner Cryogentics." Is that accurate?

A That is correct.

Q The memorandum continues, "The following happened (1) William Gardner has been terminated as an employee of Gardner Technology."

A I guess Tom Stanton told me that. I would say that is correct.

Q "Present plan for Gardner as follows (A) continue operations of helium business in the U.S. including manufacture of helium in the 50 percent" -- 15 percent is stricken and 50 substituted --

MR. YOUNGWOOD: It is the same as showing it to the witness. He is reading exactly from the document. Is that the type of interrogation you had in mind?

JUDGE BARNES: No. It is not exactly. I think we should get to the real pertinent parts.

MR. TOPKIS: I am right there.

By Mr. Topkis:

Q Did these gentlemen tell you that the present plan for Gardner was to dispose of the European helium business and to continue operations of the U.S. helium business?

A Yes. They told me they were going to dispose of the European situation.

My recollection, to the best of my ability to recall, is that when asked -- when I asked them what they were going to do about the U.S. situation, it was open. Obviously they were going to continue it because they were in it, but they were entering any propositions that came along. This is my understanding of the way the thing actually happened.

Q But what they said to you was that they were going to continue operations of the helium business.

A Well, they were not going to shut it down.

Q They said they would be very interested in talking to BOC quickly about this position of the European business; isn't that right?

A That is right.

Q It is because they said that to you that you immediately got on the phone to Mr. Perham and said in effect, "Allan, there is this possibility to acquire the European business of Gardner Cryogentics in helium. Would you be interested?"

A As I testified earlier, this was the excuse for going down there.

Q It was the reason for going down there.

A If you want to use that terminology, yes. This was the reason for going down. I will accept that word.

Q Dr. Muller, must a couple of questions, if I may, about helium.

Gardner was engaged so far as industrial gasses are

concerned solely in helium business?

A Helium and equipment.

Q Helium and equipment related thereto.

A Cryogenic hardware is a better name for it.

Q Helium is shipped world-wide, isn't it?

A Yes.

Q Shipped from the United States all over the world, right?

A To the industrialized nations -- Japan, Europe.

Q So to the degree that we might speak of a helium market, it would be an international market?

A Mr. Topkis, yes, in terms of usage of helium. Of course, helium is abundant in the U.S. and Canada and not abundant in other parts of the world. It emanates from the locations where it is and it has to be shipped from there, so what you are saying a factual history.

Q That is quite different from oxygen and nitrogen and argon and the rest of the industrial gasses; isn't it?

A It is not an atmospheric gas even though there is a tiny bit in the atmosphere.

Q Helium is used by people who have no particular use for the other industrial gasses.

A In some cases. It is a cooling gas for an atomic reactor. Where it is used in welding, those people use other gasses and mixtures of those gasses with helium.

Q But you don't ship these other gasses overseas.

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A No, the economics can't justify them.

Q Dr. Muller, you testified that following the termination of your retainer as a consultant you were under a spot assignment arrangement with BOC; is that right?

A Yes, we had an understanding if I had anything which I thought was of interest I could submit it. If the interest were confirmed, I would be retained if it developed that way or if it was some sort of acquisition, I would get the usual finder's fee, whatever went on.

Q If you were asked to spend time in BOC's interests, you would be compensated at the rate of, I think, $335 a day.

A Something like that. I forget the exact figure.

Q You spent three days since 1970 for which you have been compensated at that rate.

A It is a very small number. I don't know if it is three, but it is a very small thing. The thing sort of went by the wayside.

Q During the time since April of 1970 when your consultation arrangement came to an end and continuing until today, you have had an economic incentive to offer opportunities for acquisition to BOC, haven't you, in that you hoped to obtain finder's fees?

A I guess strictly speaking that is a fair interpretation of the situation.

Q So far as industrial gasses are concerned, Doctor, you never recommended to BOC that it enter the United States on a

so-called green field basis.

A Are you referring to Greenfield's report?

Q No, green field is an alternative formulation for what might otherwise be called grass roots. That is, come to the United States, set up a separation plant.

A I don't recall ever saying anything like that or to that effect.

Q Didn't you in 1969 have a conversation with Mr. Lesley Smith in which you said that you saw no point in a toehold entry into the gases field.

A Yes, I do recall that. Either you go in or you stay out.

MR. YOUNGWOOD: Your Honor, I have serious difficulties right about now. I would like to know the source of Mr. Topkis' last question. I object to the introduction of any evidence of that nature until such time as we see documents which relate to that.

MR. TOPKIS: What kind of objection is that? I asked him about a conversation.

MR. YOUNGWOOD: I don't understand the cause for the laughter, but we have received certain information pursuant to a subpoena. We asked for all information as it related to possible entry into the United Statesmarket. Now we are being surprised with a question which apparently relates to some document which they must have had which we didn't receive.

MR. TOPKIS: It does not.

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JUDGE BARNES: Your problem is you think you did not get a complete return on the subpoena. Mr. Topkis is free to frame questions on cross examination and use any source at his command. If you think he did not comply with the subpoena, ask a direct question about that.

MR. TOPKIS: Mr. Youngwood is operating under a total misapprehension. I asked the witness about a conversation not a document. There is no known way aside from what the White House learned about recently of keeping records of conversations.

MR. YOUNGWOOD: We have one in the Federal Trade Commission.

JUDGE BARNES: On redirect you might explore this with the witness.

Continue, Mr. Topkis.

MR. TOPKIS: Thank you, your Honor.

By Mr. Topkis:

Q Dr. Muller, I am going to show you three pages which have been marked as BOCRX 181 and a cover sheet over them and ask you if you recall receiving that document or a copy of it?

MR. YOUNGWOOD: Your Honor, may I ask what the purpose of showing this document to Mr. Muller is.

MR. TOPKIS: Certainly. I want to show him what instructions he received with respect to the green field investigation.

JUDGE BARNES: Mr. Topkis identified it as a respondent exhibit. I assume you have copies of it.

MR. YOUNGWOOD: We have a copy of it.

Can I ask Mr. Topkis the purpose of introducing this exhibit at this time or offering it for identification.

JUDGE BARNES: He has not offered it for identification. He has shown it to the witness.

MR. YOUNGWOOD: For what purpose?

JUDGE BARNES: I don't know.

MR. YOUNGWOOD: I would like to know under what circumstances the witness was permitted to examine the document.

JUDGE BARNES: He can show the witness a document.

MR. YOUNGWOOD: For what purpose is it being shown?

JUDGE BARNES: I assume we will find out.

MR. YOUNGWOOD: Then I will reserve my objection until the question is asked.

By Mr. Topkis:

Q Did you receive the original or a copy of this document?

A I presume I have. This is one letter in several boxes.

Q It looks familiar to you?

A The content of the assignment, the gathering of this information on the last page I was certainly familiar with. This was all part of providing the statistical background for a decision.

MR. TOPKIS: I offer it in evidence, your Honor.

MR. YOUNGWOOD: Would Mr. Topkis identify the document as to the time and date and title.

JUDGE BARNES: Mr. Topkis, your exhibit list is not in evidence, so I ask that you read a description into the record.

MR. TOPKIS: The cover sheet is dated December 1, 1969 and is headed "President Canox, J.A. Perham to Dr. Albert Muller. Dear Al:" There are enclosures. The second sheet is marked BOC Chairman Committee, minutes, study of U.S.A. market.

The third sheet is marked C.C. paper, and that means Chairman BOC, study of U.S. market and the fourth sheet is marked "Information Required."

JUDGE BARNES: This has been marked as Respondent exhibit?

MR. TOPKIS: 181. The enclosures have been. The cover sheet has not yet been marked and I would ask that it be supplemented and regarded as a supplemental part.

MR. YOUNGWOOD: Your Honor, we do not have a copy of that document present but we would like the opportunity to take a look at it.

JUDGE BARNES: This will be Respondent Exhibit 181A through D.

MR. YOUNGWOOD: May I ask Dr. Muller one question with respect to this document?

JUDGE BARNES: I think you should look at the

document first, Mr. Youngwood.

VOIR DIRE

By Mr. Youngwood:

Q Did you say you recalled receiving this document?

A I recalled what was required because this was part of gathering information.

Q Do you recall today receiving it when this document was written?

A To the best of my ability to remember the circumstances, I think I got that, Mr. Youngwood, yes.

MR. YOUNGWOOD: We can't cross examination Dr. Muller on this document. I would respectfully request that with respect to the fact that it was written and for no other purposes, but I would respectfully request that the document be submitted when they call the author to the stand. We cannot cross examine or question Dr. Muller at all with respect to the contents of the document since he did not write it and he does not even remember for sure that he received it.

JUDGE BARNES: The document was addressed to Dr. Albert Muller at his home address in Lebanon, New Jersey. He assumes he received it and it is proper for Mr. Topkis to go into the subject matter of this exhibit. And if you can't cross examine him on it you had better get somebody over here who can.

MR. YOUNGWOOD: He did not write it.

JUDGE BARNES: He received it.

MR. YOUNGWOOD: We would be happy to question him with respect to his receipt.

Is this being introduced merely to indicate that it was written? Is that the purpose of the introduction, because I think certainly the truth of any of the statements in there are highly in question. We have no reason to concern ourselves with that at this moment.

JUDGE BARNES: I assume at this point it is being offered as a document which Dr. Muller received.

MR. YOUNGWOOD: And it will be received only for that purpose?

JUDGE BARNES: At this point.

MR. TOPKIS: Absolutely. The author will be here and he can be cross examined to complaint counsel's heart's content.

JUDGE BARNES: I will receive 181A through D.

(The document heretofore marked Respondent's Exhibit 181A through D was received in evidence.)

MR. YOUNGWOOD: We are somewhat unclear. The document has been offered into evidence merely to show Dr. Muller has received it?

JUDGE BARNES: That is correct.

By Mr. Topkis:

Q You told us, Dr. Muller, earlier, that you prepared

CX 29, the guidelines for BOC group activities in North America?

A That was done jointly with Mr. Perham.

Q You sent this to London or he did?

A I think he transmitted it or he may have taken it over personally.

Q You never received a letter or Telex or any other writing saying to you, yes, those guidelines are satisfactory, please proceed? Just yes or no.

A To the best of my recollection, no.

JUDGE BARNES: Did you receive one saying they were unsatisfied?

THE WITNESS: No. I discussed this orally, though.

By Mr. Topkis:

Q You just went ahead --

A I just didn't go ahead. I went ahead on the basis of the understanding we reached.

Q You and Mr. Perham -- is that the fact?

A As I recall it.

Q Dr. Muller, you told us, I believe, earlier this morning in the course of one of your answers that BOC possessed the necessary capital and skills to enter the American industrial gases market; is that right?

A I believe I said that.

Q In your view, German Linde also has those resources and skills, does it not?

A There is a difference.

Q Just answer my question, if you will.

A I will answer your question, yes, but there is a difference.

Q What is the difference, sir?

A The difference basically is one related to what you might call marketing and distribution area. German Linde primarily over a period of years has been the major producer of industrial gas plants in the world. What they did as a pattern, they contracted for and started up if necessary industrial gas plants. They sold them if you will.

Whereas I think the pattern with BOC and of course many of the other people were different. They built these plants primarily to supply their own businesses. In other words, they were more interested in the sale of the product that came from such plants than was German Linde. German Linde did distribute and sell in Germany. There is no question about that, but on a world-wide basis they were a seller of plants rather than in the case of BOC, South African Oxygen as a distributor of oxygen.

Q But German Linde does have the technical skills and the financial resources.

A Those two, they do. The marketing side, there is considerable difference.

Q German Linde markets in Germany?

A Yes, and central Europe.

Q And central Europe; right?

A Yes.

Q It also markets in South Africa, doesn't it?

A German Linde?

Q Yes, sir.

A I can't factually remember whether they do or they don't.

Q They market outside of Germany; is that right?

A They sell plants outside of Germany. Whether they actually manufacture and sell the products outside of Germany for their own account, if it is being done, it is done on a very small scale.

Q You don't know?

A I don't know.

Q Do they sell in Austria?

A Yes.

Q They are the biggest market in Austria, aren't they?

A I guess the answer to that is yes.

Q You have heard also of a firm called Messer Greisheim?

A Yes, sir.

Q They have the technical resources and the marketing skills and the financial capacity to enter the industrial gases field anywhere in the world?

A At this point in time, absolutely.

Q Indeed, would you not say that more than BOC they have that ability or those abilities?

A No, I would not make that judgment. They certainly have more financial resources.

Q Aren't they better qualified on an across the board basis than BOC?

A Not in this industry.

Q You would not say they are better qualified than BOC since they possess equal technical skills and far superior financial resources?

MR. YOUNGWOOD: Your Honor, the witness has already answered this question.

JUDGE BARNES: This is proper cross examination.

THE WITNESS: In my judgment, there is no distinguishing superiority of Messer Greisheim. As a matter of fact, I would think it might be the other way.

By Mr. Topkis:

Q Messer Greisheim resources are over $3 billion.

A Remember, you are going back to 1969 before the acquisition was made.

Q I am not. I am talking about today.

A Today you are right.

Q And I was right in December of 1973, wasn't it?

A If you say so.

Q No, sir, you are the expert.

A They certainly have better financial resources. They do not have particularly superior technology and I doubt if they

have the capability in the marketing area that BOC has.

Q You have not seen their operation?

A I have seen it many times.

Q Where?

A In Frankfurt.

Q Anywhere else?

A I have seen their plants around. I bought several of their plants when I was with Air Reduction.

Q So they make pretty good plants?

A Yes.

Q Do you know where they market?

A At this particular point in time, their pattern is different than it was when I was closely familiar with it.

Q Let's take December of 1973. Where were they marketing then?

A In Germany mostly.

Q Anywhere else?

A Anywhere else they could sell plants. They were not going into the industrial gas business on the scale that would compare with, say, Air Liquide.

Q They are the biggest industrial gas air company in the world, aren't they?

A I really think the biggest one is Union Carb ide.

Q They are neck and neck.

A I don't know. The corporations do not cover specific data on their gas sectors.

Q Dr. Muller, you were in my office on May 1.

A That is correct.

Q You met with Mr. Kaplan who is sitting at my right and myself, didn't you?

A Yes.

Q You told us that Messer by reason of its merger or affiliation with the Hoechst interest was better qualified than BOC today to enter the American industrial gases market.

A I don't think I said that. You may have written it down. I think I have qualified it in the way I just described it.

Q Do you think both Mr. Kaplan and I wrote it down in the same way?

A I don't know how you wrote it down.

MR. YOUNGWOOD: I think the witness is being harassed.

JUDGE BARNES: I think this matter has been covered sufficiently. It will not refresh his recollection to look at your notes.

By Mr. Topkis:

Q Around 1967 BOC and Airco entered into a joint venture relating to the selling of industrial gas plants, didn't they?

A Two joint ventures.

Q One in the United States and one in Europe?

A One in the UK.

Q The idea was that the joint venture would market BOC-made

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industrial gas plants, air separation units in the United States; right? That is the American end of the joint venture would?

A The American end of the joint venture was to sell plants, which plants in part were to be built in a facility that existed north of London in Edmonton that BOC had.

Q You voted against that joint venture, didn't you?

A That is correct.

MR. YOUNGWOOD: I think we have gone far beyond direct. We did not broach this. I don't see the relevance.

JUDGE BARNES: I don't see it either.

MR. TOPKIS: I will demonstrate it.

By Mr. Topkis:

Q You were opposed to that.

A Yes, based on the fact that I could not see a continuing load of plant contracts for plants which would support that business. I so stated and I was overruled in that regard.

Q You thought there was too much competition on the scene.

A I thought there was a good deal of competition and I also knew the demand for such plants would be falling off.

MR. YOUNGWOOD: Your Honor, we are not discussing the construction of plants. The fact that there may have been competition in the construction of plants is of no relevance. We have not inquired as to the competition in that area. Mr. Topkis asked the question and I submit it is not relevant

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and it is far outside the scope of direct.

JUDGE BARNES: I think it is at this point.

MR. TOPKIS: I don't want to press it. I have gotten what I want and I am content.

MR. YOUNGWOOD: Your Honor, I think that that is one of the many comments that we should strike. I move that Mr. Topkis' last comment be stricken and strike the answer as well.

Your Honor, I move the witness' answer be stricken in light of the fact that your Honor ruled we have gone outside the scope of the direct and it is not relevant to the proceeding, I move it be stricken.

MR. TOPKIS: If you want argument, I think I could demonstrate it is very, very relevant.

JUDGE BARNES: But was it relevant to the direct examination?

MR. TOPKIS: It probably is not. What am I going to do? Call this man back again to answer one question.

JUDGE BARNES: We will leave the record as it is.

By Mr. Topkis:

Q Dr. Muller, you know David Craig, don't you?

A Yes.

Q How have you known him? I know he is sitting in the back of the room.

A I have known him, I guess, roughly since 1950. I hired him at Air Reduction. He worked for me a while and moved

into other activities.

Q He was engaged in the industrial gas end of Airco's business for many years, wasn't he?

A Yes.

Q Do you know what position he holds today?

A Yes, he is a corporate officer and he is responsible for the industrial gas business.

Q For how long has he been responsible for the industrial gas business?

MR. YOUNGWOOD: I would ask for a showing of relevance.

JUDGE BARNES: This is background.

THE WITNESS: Since Mr. Simpson left the company a few months ago. He was responsible for some time prior to that.

MR. YOUNGWOOD: I think Mr. Topkis should get to the point. To what part of our direct examination is he referring?

JUDGE BARNES: He will get to that. This is background. If he does not get to it, I will ignore it at a later date, but we have to have the background.

MR. TOPKIS: That is exactly the point, your Honor. These are background questions. There will be one final one.

By Mr. Topkis:

Q You know Mr. Allan Perham?

A Yes.

Q He is the chief executive of Canox?

A Yes, sir.

Q Active in the industrial gasses field for many, many years?

A Yes.

Q You know Mr. Lesley Smith?

A Yes, I do.

Q He is Chairman of British Oxygen?

A Yes.

Q He, too, has been active in the industrial gas use field for many years.

A Yes.

Q Both of these gentlemen are sitting in the back of the room also, are they not?

A Yes, sir.

Q I guess that is enough. I don't want to omit any friends. Mr. Giordano was in the room.

MR. YOUNGWOOD: We will stipulate Mr. Muller knows almost the entire back row.

JUDGE EARNES: Thatis not sufficient.

By Mr. Topkis:

Q You know Mr. Richard Giordano?

A Yes.

Q What title?

A He is president of Airco.

Q He, too, has been active in the industrial gases field

for many years.

A I guess I would have to answer yes to that.

Q You said earlier in your testimony that you believe you know more about this business than anyone in the room. My question to you, sir, is do you know more about the business than all of them put together or any of them individually? Which is it?

A I made a gratuitious statement which I withdraw.

Q Fine. Then I will stop my questions.

MR. WOLLEN: We have no questions at this point, your Honor.

MR. YOUNGWOOD: Your Honor, complaint counsel has no further questions.

JUDGE BARNES: Dr. Muller, thank you very much.

We have two witnesses this afternoon.

We will recess at this time and reconvene at 1:45.

(Whereupon, at 12:15 p.m., the hearing recessed to reconvene at 1:45 p.m., the same day.)

AFTERNOON SESSION

1:45 p.m.

JUDGE BARNES: On the record.

MR. PURCELL: Complaint counsel calls Howard Heckel.

- -

HOWARD HECKEL was thereupon called as a witness for the Commission and, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By Mr. Purcell:

Q State your name and home address.

A Howard Heckel; 13335 Watertown Plank, Elm Grove, Wisconsin.

Q Who is your present employer?

A Northern Gases.

Q What position do you hold with that company?

A President.

Q What are your duties and responsibilities?

A Primarily sales.

Q How long have you held that position?

A Approximately a year and a half.

Q Could you detail the rest of your experience with Northern Gases and Supply Company?

A Some of the other duties I have had?

Q Right.

A I was vice-president and treasurer. I am pretty familiar

with all phases of it.

Q How long have you been with the company?

A Twenty-five years.

Q What business is your company in?

A We manufacture industrial and medical gases. We handle all supplies pertinent to electric or gas welding.

Q What industrial gases are produced by your company?

A Oxygen, nitrogen and acetylene.

Q Are any industrial gases purchased by your company for resale purposes?

A Whenever we are not in a position to supply our customers, then we do have to go out on the open market and buy it.

Q Which industrial gases are purchased by your company?

A Oxygen and nitrogen.

Q Are any other industrial gases purchased by your company and sold to your customers?

A Yes, argon, CO^2, helium.

Q What is CO^2?

A Carbon dioxide, hydrogen, helium, propane.

Q Is nitrous oxide purchased by your company for resale purposes?

A Yes.

Q Why does your company market gases it does not produce?

A Anybody who is in this type of business you are better off having a complete line of gases.

Q What advantages are offered?

A We find most of the customers prefer to buy from one source.

Q In what geographic area does your company do business?

A I would say 90 percent metropolitan Milwaukee area and the rest through the State of Wisconsin.

MR. NEWCOMB: Could you keep your voice up, please.

By Mr. Purcell:

Q During the calendar year 1972, what were the total sales for industrial gases by your company?

A Roughly about $2 million

Q What was the value of industrial gases produced by your company for calendar year 1972 f.o.b. plant?

MR. TOPKIS: Isn't that the same question and, if not, what is the difference?

JUDGE BARNES: Let me have the next to the last question, please.

(The reporter read the question as requested.)

JUDGE BARNES: You may answer.

THE WITNESS: I would imagine the first question covered all the gases we produced as well as bought on the outside. The second question I would imagine pertains to what we manufactured.

By Mr. Purcell:

Q That is correct.

A Roughly $900,000 to a million dollars.

Q Does that approximately $1 million include sales of nitrous oxide?

A Yes.

JUDGE BARNES: Can you give us a production figure based on the f.o.b. plant value or the invoice value?

THE WITNESS: The second figure was the amount that we manufacture at the plant site. Of course, from there we do deliver in a liquid form, compress it into a gaseous form and we sell that along with other product that we buy on the outside.

By Mr. Purcell:

Q The difference between $900,000 and $1 million would be for gases purchased by your company?

A Yes.

Q Does your company belong to any trade associations?

A OMA, for one, which is independent oxygen manufacturers.

Q During 1972, were there any other companies in the industrial gas business in the United States, production and distribution of industrial bases?

A Yes.

Q Can you identify those?

A Linde, Carbonic Air Co., Liquid Carbonics, Liquid Air. Are you also talking about independents, like Alabama Oxygen, Industrial Air Products, Dye Oxygen.

Q Was there a company identified as Burdett of Cleveland?

A Yes, two Burdett companies.

Q Were industrial gases produced by National Welders and Supply Company?

A Yes.

Q Southern Cryogenics?

A Yes.

Q Selox?

A I think so.

Q Pacific Oxygen Company?

A I think so.

Q Big Three Industries?

A Yes.

Q How many plants does your company have, Mr. Heckel?

A Four.

Q Does your company have any plants that produce oxygen and nitrogen?

A Yes.

Q Could you give us the size of those plants?

First, how many do you have?

A Two.

Q Could you give us the size?

A One is a 25-ton plant and the other is an 80-ton plant.

Q When did your company make the decision to construct an 80-ton plant?

MR. NEWCOMB: Objection. No foundation has been laid

for that decision.

JUDGE BARNES: They have a plant. I guess it had to be constructed.

MR. NEWCOMB: Or purchased.

JUDGE BARNES: Ask him if it was purchased or constructed.

By Mr. Purcell:

Q Was that plant constructed or purchased?

A It was purchased.

Q When was the decision make to purchase that plant?

A Approximately September, 1972.

Q Why was that decision made?

A Because we did not have enough products to supply our customers with, so we decided to expand.

Q When did that plant go on stream?

A December of 1973.

Q Is both your 25-ton plant and your 80-ton plant operating at full capacity?

A Now?

Q Yes.

A Yes.

Q Does your company have any announced plants for expansion?

A Yes.

Q What are they?

A We hope to acquire a liquifyer compressor to add to the

plant which should upgrade it to approximately 175-ton.

Q What would be the total capacity of that plant?

A 250.

Q Why are you expanding the capacity of that plant?

A Because there is a market for it and we could sell it.

Q Has the demand for industrial gases in your marketing area been increasing since 1970?

MR. TOPKIS: I take it this question relates to Milwaukee and the Milwaukee area?

JUDGE BARNES: Milwaukee and Wisconsin is his marketing area.

THE WITNESS: Yes.

By Mr. Purcell:

Q Why has it been increasing?

A A lot of the plants are sort of upgrading their production as well as environmental reasons and restrictions put on by OSHA and new businesses for nitrogen freezing, primarily.

Q Have your customers' demands been increasing?

A Yes.

Q Mr. Heckel, have any of the previous companies you have identified as being industrial gas producers approached you for purposes of discussing acquisition?

A Yes.

Q Acquiring your company?

A Yes.

Q Can you identify those companies?

MR. TOPKIS: Objection. I am not sure I perceive the relevance of this.

JUDGE BARNES: What is the relevance, Mr. Purcell?

MR. PURCELL: Your Honor, we hope to demonstrate that Northern Gases and Supply Company has been available for acquisition over several years, and if I am permitted to ask the question, I think the witness will demonstrate that.

During investigational hearings in York when we were deposing some British Oxygen officials, they indicated that they did not contact certain people in the industry. They contacted these people, that they were considering or not considering acquiring this or that company.

I hope to elicit through Mr. Heckel that in fact his company was available.

MR. TOPKIS: Your Honor, the way to find out whether a company is available is to ask whether it is available, not whether it has been approached. If every girl I approached I acquired, I might not be here today. I at least would be much happier.

By Mr. Purcell:

Q Is your compnay available for acquisition?

A Yes.

Q Was it available for acquisition in November of 1973?

A Yes.

Q Have any companies contacted you for the purpose of discussing ---

MR. TOPKIS: I object.

JUDGE BARNES: I don't think that is relevant unless you want to ask if BOC contacted him or a BOC subsidiary.

By Mr. Purcell:

Q Mr. Heckel, do you know if any of the companies you have identified as industrial gas companies were available for acquisition during the period 1968 to date?

A Would you repeat that, please?

(The pending question was read by the reporter.)

MR. TOPKIS: Your Honor, the record already reveals two or three of those companies has been acquired, I think, by Liquid Air so to that degree the record is clear. Beyond that, I suppose any testimony by the witness would be inadmissible.

JUDGE BARNES: The question can be answered yes or no and beyond that, we need to have some first-hand knowledge.

By Mr. Purcell:

Q Could you answer the question?

A Yes.

Q Have you personally spoken with any representative of any of the companies you have identified?

A Yes.

Q Can you indicate what was discussed?

MR. TOPKIS: Objection.

JUDGE BARNES: Is your question limited to companies that he was trying to acquire? You are asking him if other companies were available for acquisition. He has already testified his company was.

MR. PURCELL: I think this question does go to the witness's state of mind at the time of the discussions and I think he is able to testify to that.

JUDGE BARNES: As to whether a company was acquiring?

MR. PURCELL: Whether it was available for acquisition.

MR. TOPKIS: What difference does this witness's state of mind make? That is not an issue.

MR. PURCELL: Your Honor, we hope to establish by this line of questioning that it was general industry knowledge during the period 1968 to date that there were companies, smaller producers in the United States that were available for acquisition.

JUDGE BARNES: I think you already have better evidence in the record than industrial knowledge. You have acquisitions that have been made and you have Mr. Heckel saying his company was available.

Beyond that, I think we should have first-hand knowledge, not industry information.

Mr. Heckel, you mentioned Industrial Air Products. Has that company been acquired?

THE WITNESS: Yes.

JUDGE BARNES: Has Dye Oxygen been acquired?

THE WITNESS: Yes.

By Mr. Purcell:

Q Mr. Heckel, based on your experience in the industry nad particularly during the period 1969-1970 to date, do you have reason to believe that growth in the industrial gases area where your company does business will necessitate additional expansion over and above your announced plans?

A I think there will certainly be a demand for it, but whether or not we would capture that much of the market, I doubt it.

MR. PURCELL: Your Honor, I have no further questions at this time.

CROSS-EXAMINATION

By Mr. Topkis:

Q I have just a few questions.

You spoke of your company selling industrial gases. Do you sell propane?

A Yes.

Q MAPP?

A No.

Q Acetylene?

A Yes.

Q Any other fuel gases?

A Apache, which is quite similar to MAPP.

Q Are there any fuel gases which you don't sell?

A Yes.

Q Would you name those for us, please, sir?

A Acetogen, Thermagen; various other names for different types of propanes with additives.

Q Do you sell carbon monoxide?

A No.

Q Do you sell carbon dioxide?

A Yes.

Q Xenon and krypton?

A No, we don't.

Q Sir, you testified in response to questioning from Mr. Purcell that in calendar 1972 you had total industrial gas sales of about $2 million?

A Yes.

Q I gather that you produced about $900,000 to a million dollars of that sum, right?

A You are speaking of the oxygen and nitrogen, yes, but we also manufacture acetylene.

Q You answered my friend by saying that the value of the gases that you produced f.o.b. your plant was $900,000 to $1 million?

A Yes.

Q My first question to youralong that line is, is that value on the same basis as the $2 million figure; that is to say, did

you have $900,000 to $1 million of sales of the gases which you produced yourself?

A Yes.

Q So that the other $1 million of your sales was accounted for by gases which you purchased from others?

A Not necessarily. I was lead to believe the question was what was the total value of the product that we manufactured at the manufacturing facility. We manufactured it, we did haul it to our distribution point in Milwaukee.

Liquid oxygen sells at a much lower price than gaseous oxygen which we did put into higher cylinders along with argon and propane and some of the other gases we purchased on the outside represented $1 million.

Q Of the $2 million in sales, what proportion was accounted for by gases thatyou produced yourself?

A I would say three-quarters.

Q So you bought gases that you sold for about half a million dollars?

A A quarter of a million dollars or three quarters of two million dollars, which would be about $1,500,000.

Q You sold them for $1,500,000?

A Yes.

Q What did you pay for the gases?

A The gases?

Q Yes.

MR. PURCELL: I think this is going further than is necessary to establish what Mr. Heckel's sales were in the area. What he paid for that particular product is not relevant.

JUDGE BARNES: Do you have any objection to answering that?

THE WITNESS: No.

JUDGE BARNES: You may answer.

THE WITNESS: In relation to what?

By Mr. Topkis:

Q You bought some gas you sold for half a million dollars. I am trying to make the figures come out right. Did you pay half a million dollars or less?

A We paid less.

Q Do you know how much less?

A No.

Q Do you take a 20 percent mark-up or 50 percent mark-up or whatever?

A No, not really. There would be so much cranked into it such as transportation, storage and things of that nature.

Q So there is really no way to tell with any degree of accuracy what your cost of that half a million dollars worgh of gas was.

A That is true.

Q You bought that gas from whom?

A Burdett Oxygen and Air Products.

Q Burdett of Norristown or Cleveland?

A Of Cleveland.

Q Do they regularly supply you with gases?

A Yes, we have back up contracts with them.

Q When you have a shortage you can call on them?

A Yes.

Q What kind of contract is a back-up contract as you use the term.

MR. PURCELL: Your Honor, I did not go into this matter on direct examination. It is cutside the scope.

JUDGE BARNES: This is a general question. What is a back-up contract?

THE WITNESS: In the event we should have a plant failure or plant turn-around, which is caused every year because you do have to shut it down and take care of all the minor repairs.

By Mr. Topkis:

Q For maintenance?

A Yes. Then we do go on the outside and purchase back-up products from Air Products and Burdett.

Q You have contacts with them under which they are obligated to supply you or you have the right to call upon them for such supplies.

A Yes.

Q Are such contracts common in the industry?

A I really don't know.

Q But it is important for you to have such a back-up in case your plant goes down?

A Yes, especially for us.

Q You have contracts with your customers who expect you to supply them; right?

A Yes.

Q You mentioned a number of companies engaged in the industrial gases business. Are there many of them operating in the Milwaukee area?

A No, none.

Q None at all?

A No, none at all.

Q You are the only industrial gases company in Milwaukee?

A In the State of Wisconsin.

Q You must be very happy.

A Not really.

Q How about Burdett of Cleveland or Air Products. They don't sell in your area.

A They all sell in the area. I thought you were talking about manufacturing.

Q There are other industrial gases companies that sell in the Milwaukee area?

A All of them.

Q How many?

A All of the major ones -- Linde, Airco, Chemetron, Liquid Carbonics, Liquid Air, Burdett; any of the five, six or seven majors.

Q Let me ask you a quick question, Mr. Heckel. Do you feel any lack of competition in your area?

MR. PURCELL: I object. I think that is calling for a conclusion by the witness. It is a legal conclusion.

MR. TOPKIS: As my friend would say, I am probing his state of mind.

JUDGE BARNES: I think he said all the majors were selling in the area.

By Mr. Topkis:

Q I think you said before your company at the end of 1973 was available for acquisition.

A Yes.

Q What were your earnings in 1973, sir?

MR. PURCELL: I don't believe this questioning is necessary.

THE WITNESS: I would just as soon not answer that.

JUDGE BARNES: That was not gone into.

MR. TOPKIS: I don't think the availability or non-availability of Mr. Heckel's company will break this case and I really don't want to invade his privacy but for someone to come along and say I am available for purchase, anybody usually is available for purchase. I suppose if I offered General Motors

enough, like for example half an interest in the Kuwait oil fields, I could buy General Motors.

The question is always how much and in comparison to what. I don't want to trespass upon this confidence but shall I move to strike his testimony that he is available?

JUDGE BARNES: I think you can ask him if his company is profitable or operating at a profit.

By Mr. Topkis:

Q Was your company operating at a loss or profit in 1973?

A Profit.

Q Is your company a partnership?

A It is incorporated and my brother and I own 50/50.

Q Each of you receives salary from the company?

A Yes.

Q Is any of your family on the payroll other than you brother and yourself?

A Five sons.

Q What price did you have in mind when you were interested in selling your company?

MR. PURCELL: Your Honor, I don't think this is necessary. I was precluded on direct examination as to which companies were contacted and any discussion concerning this.

JUDGE BARNES: I don't know that we have to have an exact price of what his company is available for, do we?

MR. TOPKIS: I don't think that his testimony proves

very much either.

JUDGE BARNES: We could not go into whether his offering price is reasonable or not. He said his company is available. As you yourself said, I suppose most any company is available.

MR. TOPKIS: To preserve the record, I will move to strike the availability.

MR. FURCELL: Objection.

JUDGE BARNES: I will deny that.

MR. TOPKIS: I have no further questions.

MR. NEWCOMB: Your Honor, we have just a few.

By Mr. Newcomb:

Q You testified you had four plants?

A Yes.

Q Two of them are air separation units?

A Yes.

Q What are the products produced by those two units?

A Oxygen and nitrogen.

Q Do you produce any argon?

A Not today.

Q The other two plants?

A Acetylene.

Q What forms do you sell your oxygen and nitrogen in? Gaseous form?

A Liquid and gas.

Q Do you sell the gas down a pipeline?

A No.

Q Cylinders only?

A Cylinders as far as gas is concerned, yes.

Q Are both your plants located in Milwaukee?

A In Waukeshau, approximately 18 miles west of Milwaukee.

Q What is the radius around those plants that you sell your liquid product in? I realize it has to be an approximation, but can you give us an approximation?

A According to miles?

Q Yes, in miles.

A The best covered distance to mention is the metropolitan Milwaukee area, which includes the suburbs.

Q Twenty-five miles?

A Twenty-five, thirty-five miles, yes.

Q What is the radius around those air separation facilities that you sell your cylinder gas in?

A The same area.

Q About the same area?

A Yes.

Q You testified earlier that you made a decision to purchase a plant recently. From whom did you purchase that plant?

A Air Products.

Q You also testified that you have a back-up contract in connection with that plant; is that correct?

A Yes.

Q Is that back-up contract with Air Products?

A Yes.

MR. NEWCOMB: I have no further questions, Your Honor.

MR. PURCELL: Your Honor, I have just a couple of questions on redirect.

REDIRECT EXAMINATION

By Mr. Purcell:

Q Mr. Heckel, excluding acetylene, approximately what percentage is accounted for from the $2 million figure by other fuel gases sold by your company?

A Other than oxygen?

Q Excluding acetylene, what other fuel gases.

A A tenth of one percent.

Q Do you consider argon as atmospheric gas, air separation gas?

A Yes.

Q Oxygen?

A Yes.

Q Nitrogen?

A Yes.

Q Out of the approximately $2 million figure that you testified to, approximately what percentage is accounted for by the sales of these three gases.

A Are you talking about at the manufacturing point as well as the distribution point?

Q Out of the $2 million figure, what is accounted for by oxygen, nitrogen and argon?

A $1.5 million.

MR. PURCELL: I have no further questions.

MR. TOPKIS: No recross, Your Honor.

MR. NEWCOMB: No recross, Your Honor.

JUDGE BARNES: Thank you very much, Mr. Heckel.

(Witness excused.)

JUDGE BARNES: We will take a five-minute recess.

(A brief recess was taken.)

JUDGE BARNES: On the record.

MR. THURMAN: Complaint counsel calls as its next witness Mr. John Hines.

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JOHN HINES was thereupon called as a witness for the Commission and, having been first duly sworn, testified as follows:

MR. TOPKIS: Before we begin with this witness, I have been requested by the chairman of the British Oxygen Corporation to advise the Court under the proper circumstances British Oxygen is available. He will be glad to receive offers.

MR. THURMAN: Available for what?

MR. TOPKIS: Make us an offer.

A 1670

MR. THURMAN: Before we proceed, Mr. Topkis might like to tell us who else is available and we might not have to call some witnesses.

JUDGE BARNES: We will proceed.

DIRECT EXAMINATION

By Mr. Thurman:

Q State your name and address.

A John Hines; Lake Charles, Louisiana.

Q Mr. Hines, have you been exprienced in the production and marketing of industrial gases?

A A good bit, yes, since about 1964.

Q What are these experiences?

A We started a family-owned welding supply gas business in 1945 and the first part of 1946. I have worked in the business since about 1958-1959 while I was going to school, and worked full-time starting about 1962.

Q What is the name of the company?

A Originally it was Welders Equipment Company when we started in Lake Charles and had 15 welding supply stores and industrial gas business and a gas mixture company, mixing diving gases, this sort of thing. The companies were Welders Supply, Welders Equipment of the various cities, Gulf Equipment and Air Lab.

Q What positions have you held with Gulf Oxygen?

A Everything from sweeping the floor to runing it down through the years.

As I said, it was a family-owned business at one time. I worked in the business. The first management job was in 1962 when I was running our Lake Charles office. In 1964 I went to Baton Rouge and ran that for two years and my Dad retired in September of 1966 and I took over the business from September 1966 up until we merged with Liquid Air out of Montreal.

Q What date did you merge with Liquid Air out of Montreal?

A Don't hold me to the date, but the 27th or 29th of December 1972.

Q Who started this company?

A My Dad did originally.

Q Did your Dad have any experience in production and marketing of industrial gas prior to starting the business?

A Very much. He worked for Airco for somewhere around twelve years, worked out in the Texas area, all around Texas. All four boys are from different towns in Texas so he was with Airco at that particular time.

Q When did Gulf commence producing industrial gases?

A We built our first plant in 1954. Back then, it was a 40-meter column of independent engineering plant. In 1958 we built an independent engineering plant and an 80-meter column. A 40-meter column today you couldn't survive with them. They were just too small, but thatis all we needed at that particular time.

JUDGE BARNES: Can we translate that into tons? That

is the first time we have had mention of 40-meter columns.

THE WITNESS: That would be tons per month. It is very small. It is 1800 feet an hour or something like that.

By Mr. Thurman:

Q What industrial gases did Gulf Oxygen produce and market in 1954?

A Pardon?

Q What industrial gases did Gulf Oxygen at that time in 1954, your first entry, introduce.

A Acetylene is an industrial gas. We manufactured acetylene. In the air separation plant we built that 40-meter plant, made oxygen and nitrogen when it ran.

Q After you built your last plant?

A The second plant was built in 1958. However, we later shut both of them down due to the fact that the market obviously was growing. The demand for, let us say, more economical methods of making large quantities of oxygen and nitrogen and argon forced you to where you couldn't even compete even with zero investment.

The power cost was too much. We shut them down and started buhing nitrogen and oxygen and became a reseller until we built our first tonage plant in 1968, 1969, loader propane plant out of Germany.

Q In 1968 after you built your plant, what industrial gases did Gulf Oxygen produce and market?

A At that particular point in 1968, we were manufacturing acetylene, hydrogen and with that plant, argon, nitrogen and oxygen. We were selling them all along, but now we were manufacturing.

Q Did Gulf Oxygen market any gases it did not produce in 1968?

A Yes. We marketed CO^2, bought that out, bought helium from the Federal Government, and all sorts of combinations of those for a certain type of shield gas welding and this sort of thing.

Q What size was this plant that Gulf Oxygen guilt in 1968?

A In 1968 it was the loader prop plant, 60-ton oxygen plant and we made 84 tons of nitrogen, depending on how you are running the plant. That is 60 tons plus 83 tons of nitrogen.

Q What percentage of your total industrial gas sales in 1968 were accounted for by the air separation gases, nitrogen, oxygen and ---

A Percentage of gas sales, no welding supplies?

Q Just strictly gases.

A When we first built the plant, probably something like 50 or 60 plant. As the plant got loaded up, it was probably as much as 80.

Q What would it have been in 1972?

A We built the Linde plant the second time, and I would say probably somewhere around 90 percent -- 85 anyway.

Q What was the size of the second plant?

A It is a 175 tons of oxygen and 525 tons of nitrogen.
Q What was the location of these two plants?
A It is actually what they call West Lake, Louisiana, but it is across the river from Lake Charles. It is in the chemical complex serving customers by pipeline.
Q What was the total sales of industrial gases at the time you built your first plant in 1967 or 1968, approximately. In 1967 what was your total sales of industrial gases?
A In 1966 I would say somewhere around 800,000.
Q What were the total sales of industrial gases by Gulf in 1972?
A Four million -- something like that. That is close.
Q In 1972, who were the significant or top eight producers of industrial gases in the United States?

MR. TOPKIS: Objection, Your Honor. There is much better evidence available. As him who his major competitors were, Mr. Thurman.

By Mr. Thurman:

Q What marketing area did Gulf market their industrial gases in in 1972?
A Industrial gases would have been marketed in central Texas through east Texas, Louisiana, Southern Arkansas, Mississippi and into west Florida.

JUDGE BARNES: Alabama?

THE WITNESS: Yes, there is some in there.

By Mr. Thurman:

Q Any others?

A Gulf of South.

Q Who were Gulf's major competitors in the production and distribution of industrial gases in 1972?

A All your U.S. companies were there. Airco was there, as well as Air Products, Big Three was certainly there, Liquid Carbonic, NCG. Your top seven companies were there for sure.

Q Can you name those top six or seven or eight?

A Linde, Airco, Air Products, Big Three, Liquid Carbonic, NCG -- that is six.

JUDGE BARNES: Who is NCG?

THE WITNESS: National Cylinder Gas.

JUDGE BARNES: Owned by whom?

THE WITNESS: Chemetron.

By Mr. Thurman:

Q Is Gulf Oxygen a member of any trade associations?

A Yes. CGA and IOMA.

Q What is IOMA?

A International Oxygen Manufacturers Association.

Q Did you hold any offices in that Association?

A Yes.

Q Would you name the positions or offices you held?

A Two years as a director, one as secretary, one, treasurer; one as vice-president, one year as president, one year as

chairman of the board.

Q When were your chairman of the board?

A Last year.

Q What is the purpose of IOMA?

A It is a trade association to keep management abreast of what is going on in the industrial gas business.

Q What are the qualifications for membership?

A Being an industrial gas producer.

Q To what extent did the industrial gas producers in the United States market belong?

A All of them do that I know of.

Q Did you have any associate memberships in organizations?

A Yes.

Q What were the qualifications for associate membership?

A They are people, more or less alligned to the industrial gas business. When I say industrial gas business, primarily all producers have welding supply sides to them, so consequently you have certain associate members. It is beneficial for IOMA and themselves to be a participant with an organization such as this.

Q To what extent was it known that Gulf Oxygen was for sale before the sale to Liquid Air?

MR. TOPKIS: Objection.

MR. NEWCOMB: Objection.

JUDGE BARNES: Let's have a foundation question. To

what extent it was known.

By Mr. Thurman:

Q What brought about the sale of Gulf Oxygen?

A In about March of 1966 my Dad, who started the business wanted to get out so I was brought to Lake Charles to run the company.

At that particular point he wanted to build the company up to possibly someday when we could go public. After evaluating this thing so far and the desire to have a little money for some of the efforts he had into it, he made a decision in June of 1972 that he wanted to sell. He said he wanted to do this within six months and so directed me.

Q To your knowledge, was BOC aware of the availability of Gulf Oxygen?

MR. TOPKIS: Objection. I don't know how the witness can know.

JUDGE BARNES: Do you know whether or not British Oxygen was aware of the availability for sale of Gulf Oxygen in 1972?

THE WITNESS: The only thing I can say, Your Honor, is the fact that at one point I was playing golf with a man from BOC but whether he was an official of BOC, I can't swear to it, but he asked if we were available for sale and at that particular point, we were not. I said we would be someday.

No, we never had any further contact with British

Oxygen either on my part or theirs.

By Mr. Thurman:

Q Were you ever told if you were interested in selling BOC would be interested in talking?

JUDGE BARNES: By whom? I think it would be relevant if it were a responsible official.

THE WITNESS: It was an official of BOC. This was at the golf game, I am talking about.

By Mr. Thurman:

Q Has Liquid Air expanded the business of Gulf Oxygen since their acquisition in 1972?

A Yes, sure has.

Q In your business judgment, could BOC have expanded Gulf Oxygen had they purchased it into a national competer?

MR. TOPKIS: Objection. Unless the witness has familiarity with BOC.

JUDGE BARNES: I think that question is too speculative. He has answered Liquid Air expanded it. Isn't that sufficient for your purposes?

By Mr. Thurman:

Q Are you familiar ---

JUDGE BARNES: I would like to know around the time Mr. Hines was employed by Liquid Air -- what is your present occupation?

THE WITNESS: They send me a check, Your Honor.

JUDGE BARNES: Do you have a title?

THE WITNESS: Right now I am developing an oil field nitrogen service company. We just started this operation when Liquid Air stepped in. We are developing oil field nitrogen, and you introduce this into wells for corrosion inhibiting work, fracturing, acidizing, drill-stem testing and a number of other things.

Completion primarily is where we make more money. That is what we would rather do. That is how I am employed with Liquid Air right now. I am starting that company for them.

MR. THURMAN: We have no further questions, Your Honor.

MR. KAPLAN: I have just a few questions, Your Honor.

CROSS-EXAMINATION

By Mr. Kaplan:

Q At the time you sold Gulf Oxygen ---

A I can't year you.

Q At the time Gulf Oxygen was acquired by Liquid Air, what were its total sales?

A Don't hold me to it. $12 million, plus or minus a couple of percent.

Q I think yesterday Mr. Dempster of Liquid Air told us about 30 percent of those sales were sales of industrial gases; is that about right?

A That is pretty close.

Q How many members does IGMA have?

A 106.

Q They are all producers of industrial gases in the United States?

A No, sir. Some are associate members who are alligned to that business. They make their living from industrial gas producers.

Q How many associate members are there?

A I don't know what the breakdown is.

Q I gather that there has been some industrial development in the area in which you do business since 1966 which has led to an increased demand for industrial gases; is that correct?

A Certainly there are increases in industrial activity, yes.

Q Is there any particular area that has expanded in your area that has led to increased demand for industrial gases?

A No, I think Big Three lost a few contracts and that is how we got ours.

Q You are located in Lake Charles, which is about 55 miles from Houston?

A No, sir, about 150 miles.

Q Does your area of sales go as far as Houston?

A Yes.

Q And the Manned Spacecraft Center is in Houston; is that right?

A Yes. It is south of Houston.

Q It is in the Houston area?

A Yes.

Q Certainly the Manned Spacecraft Center is within the range in which you deliver and sell industrial gases; is that right?

A Yes, sir, it sure is.

MR. KAPLAN: No further questions, Your Honor.

JUDGE BARNES: Mr. Newcomb.

By Mr. Newcomb:

Q Does your company sell hydrogen?

A Yes.

Q Whom did you purchase it from?

A We purchase it in a raw form from Pittsburgh Chemicals.

Q And you purify it yourself?

A Yes.

Q What is the name of the company?

A PPG Industries now -- Pittsburgh, Plate Glass.

MR. NEWCOMB: I have no further questions.

REDIRECT EXAMINATION

By Mr. Thurman:

Q In Mr. Kaplan's cross-examination, he stated principal or primary membership was 106 producers of industrial gas in the United States.

A No, sir. There are 106 members. It is a worldwide organization. How those members are broken down, associate versus voting members -- it was like we had 64 voting members at one

time but that was a year ago. I don't know what the breakdown is now. Out of the 64, they have to be a producer. Again, that is worldwide drawing. As I stated, anybody in the industrial gas business that I know of to any significant degree in the United States is a member of IOMA.

Q Are some of these producers acetylene producers only?

A Yes.

MR. THURMAN: I have no further questions.

MR. KAPLAN: No recross.

MR. NEWCOMB: No recross.

JUDGE BARNES: We will take a five-minute recess.

(A brief recess was taken.)

JUDGE BARNES: I believe we left off with Commission Exhibit 160 yesterday.

MR. THURMAN: Before we get started on documents, and I don't know if this has to be on the record.

JUDGE BARNES: Off the record.

(Discussion off the record.)

JUDGE BARNES: On the record.

We will start with 161.

MR. TOPKIS: We could take 161, 2 and 3. My problem is I don't know what 161 is. If I can know, I might be able to form a judgment. It might have to do with Airco because one of them has a mark in it.

JUDGE BARNES: It is identified on the list as an

Airco customer sales year.

MR. TOPKIS: It does seem to relate to Airco, but I can't figure out what it is. Maybe Airco can help us.

JUDGE BARNES: Mr. Wollen, can you help us with th s? Mr. Youngwood, do you have these figures in other forms?

MR. YOUNGWOOD: Your Honor, we do have other documents which portray sales information. We looked through the documents and concluded that these doucments portrayed the information in the most concise form and the form most easily understood.

It was for that reason that they were entered. They do purport to show sales by Airco of the products listed thereon.

MR. TOPKIS: Is that what they show?

MR. WOLLEN: This is the first time I have seen this document. I take it this document was produced last December pursuant to a specific request of the staff.

MR. YOUNGWOOD: The document was produced pursuant to one of the specifications of a subpoena which was served upon Mr. Giordano.

JUDGE BARNES: This was prepared for the Federal Trade Commission?

MR. YOUNGWOOD: Yes, Your Honor. We asked for all documents showing sales of all products. I believe it was for the last five years. We had reason to believe upon receiving that particular document that that did in fact show sales of the products stated therein.

It was for that reason it was introduced.

MR. TOPKIS: It is in dollars, tons, or what?

MR. WOLLEN: I have no idea.

MR. THURMAN: There is a dollar sign on CX 162-A. Also on 162-B and 162-C.

MR. YOUNGWOOD: There is an article named here, "Carbon brushes." I would presume the number 2,253 would mean dollars?

JUDGE BARNES: We can't presume. We can not presume with figures.

MR. THURMAN: They all have dollar marks on them except the first page, 161-A. 161-B has a dollar sign right at the very top.

JUDGE BARNES: I think this is a case where you should call a witness to tell me what GP means, and AWP.

MR. THURMAN: We will have to add a witness from Airco.

JUDGE BARNES: Unless you can get together as attorneys and determine what it is.

MR. TOPKIS: Perhaps we can and we will certainly be glad to try.

JUDGE BARNES: Re-offer 161, 162 and 163 at a later date.

MR. TOPKIS: As to 164, Your Honor, we have no objection.

JUDGE BARNES: Do you have any objection, Mr. Wollen?

MR. WOLLEN: No, Your Honor.

JUDGE BARNES: I will receive Commission Exhibit 164 A through Z.

(The document referred to, heretofore marked for identification as Commission Exhibit 164 A-Z was received in evidence.)

JUDGE BARNES: These are sales figures, Mr. Topkis. Is there any problem with in camera treatment of this?

MR. TOPKIS: If I may have a moment, Your Honor, I appreciate your kindness.

No, Your Honor. This relates to our sales to Ohio Medical -- the Ohio operation of Airco.

JUDGE BARNES: I will receive Commission Exhibit 164 A through Z.

MR. TOPKIS: Exhibits 165 and 166 are unknown to me, but if they are all right with Airco, they are all right with me.

MR. WOLLEN: We have no problem as to the admissibility of the two exhibits. We would request confidential treatment with respect to 165.

JUDGE BARNES: Could I see 165 and 166, please?

I will receive Commission 165 A through C in evidence in camera and I will prepare a written order on it, and I will receive in evidence Commission Exhibit 166 A through 166-Z79.

(The document referred to, heretofore marked for identification as Commission Exhibit 165 A-C (in camera) was received in evidence.

MR. TOPKIS: Your Honor, we have no objection to 167.

MR. NICKEL: It is omitted.

MR. TOPKIS: Exhibit 168, Your Honor, if I may show it to Your Honor ---

MR. NEWCOMB: Have we had 166 admitted?

MR. TOPKIS: I think so. I said it was okay with me.

MR. WOLLEN: With respect to 166, we have no objection to admissibility, but we would request the same confidential treatment.

JUDGE BARNES: I will receive Commission Exhibit 166 in camera also.

(The document referred to, heretofore marked for identification as Commission Exhibit 166, was received in evidence.)

MR. TOPKIS: As to 168, I can advise Your Honor it is my understanding, Mr. Frost, the author of the document, is with Chemetron. I certainly don't object to the document coming in for non-hearsay purposes and I am not sure what else it would do, but I would object to its receipt for hearsay.

I might tell Your Honor that it is kind of a classical

demonstration of something that proves nothing because the answer to this document is Commission Exhibit 53 in which Mr. Wilson writes back and says in effect "very nice to hear from you, but you got the wrong man. I don't know anything about industrial gases" and 163 is evidence, so I don't know what the exchange proves, but if my friends want it, they can have it.

JUDGE BARNES: Do you still offer 168? How about 168?

MR. THURMAN: I believe we would withdraw 168 and withdraw 53 which has already been admitted into evidence. The two are together, so if we withdraw one, I think we ought to withdraw the other one.

JUDGE BARNES: What was the other exhibit?

MR. THURMAN: Excuse me, 168 and 53.

JUDGE BARNES: Commission Exhibit 53 was received earlier in this proceeding and complaint counsel have now determined they would like to withdraw the exhibit. Is there any objection?

MR. TOPKIS: No, sir. We join in the application.

JUDGE BARNES: We will withdraw Exhibit 53.

(The document referred to, heretofore marked for identification as Commission Exhibit 53 and received in evidence, was withdrawn.)

MR. TOPKIS: On 169, Your Honor, I don't know what it is but if it is all right with Airco, it is all right with me.

MR. WOLLEN: We have no objection, but we would request confidential treatment of this document.

JUDGE BARNES: I will receive Commission Exhibit 169 A through Z-17 in camera.

(The document referred to, heretofore marked for identification as Commission Exhibit 169 A-Z17 (in camera) was received in evidence.)

MR. YOUNGWOOD: Your Honor, this document contains pages 90 through 131 of the proposed 1974-1975 Ohio Medical budget. We are not submitting the entire document as a result of an agreement reached with Airco, but it should be recognized this is an important parcel of the complete document.

JUDGE BARNES: Could we go through 170 through 177?

MR. TOPKIS: I have no problem, Your Honor, I may say, until 192.

MR. WOLLEN: I have no problem through 179, Your Honor. I have a problem with respect to 180 only insofar as we would request in camera treatment with respect thereto.

JUDGE BARNES: Do you offer Commission Exhibits 170 through 179?

MR. THUMAN: Yes, Your Honor.

JUDGE BARNES: I will receive Commission Exhibits 170 through 179 with appropriate sub numbers.

(The documents referred to, heretofore marked for identification as Commission Exhibits 170 through 179, were received in evidence.)

JUDGE BARNES: Commission Exhibit 180 I would like to examine for a moment.

Mr. Wollen, let me ask you about 180. These are sales reports, December, 1970. Do you still feel that the figures are confidentail since we are now in 1974?

MR. WOLLEN: I am told my client does feel that way, Your Honor. Perhaps you could limit the period if you wish.

JUDGE BARNES: I will receive Commission Exhibit 180 A through X in evidence in camera.

(The document referred to, heretofore marked for identification as Commission Exhibit 180 A-X (in camera) was received in evidence.

MR. WOLLEN: Your Honor, I now see that 180 is the first in a series of exhibits that go through 187, all of which are the same. We would request the same treatment with respect to each.

JUDGE BARNES: Is there any objection from 181 through 187?

MR. TOPKIS: Not from us.

JUDGE BARNES: I will receive Commission Exhibits 181 through 187 with the appropriate subnumbers in camera.

EX

(The documents referred to, heretofore marked for identification as Commission Exhibits 181 through 187 (in camera) were received in evidence.)

JUDGE BARNES: Complaint counsel, I have not heard anything from you. Are you offering this whole group, or what?

MR. THURMAN: I am sorry, I was not listening. Complaint counsel offers the whole group.

MR. TOPKIS: We don't object to 188, 189, 190, 191.

MR. YOUNGWOOD: Complaint counsel offers 188.

JUDGE BARNES: I will receive it in evidence.

X

(The document referred to, heretofore marked for identification as Commission Exhibit 188, was received in evidence.)

MR. YOUNGWOOD: We have withdrawn 189, 190, 191, 192.

MR. TOPKIS: I object to 192, which is a listing with the New York Stock Exchange of a company called Emerson Electric Company. I can't imagine how that could be binding on me.

MR. WOLLEN: Or me.

JUDGE BARNES: What is the purpose of 192?

MR. TOPKIS: Also, it is not complete.

MR. THURMAN: Your Honor, I believe this was sent to the Commission pursuant to subpoena from BOC. It does describe the business of Harris Lake and it is very pertinent information concerning Harris throughout this document. It would certainly

be relevant to this proceeding. I think it would have to fall under the Lonnox.

JUDGE BARNES: Was Harris Lake later sold to BOC?

MR. THURMAN: Yes, as a subsidiary, Harris Colorific.

MR. TOPKIS: We had a 24 percent interest in something called Harris Colorific. We would up after a couple of transactions owning something called Harris Lake at a cost of $2 million. That was late in 1973, but this document I don't really think is a document. The top page and second page I don't believe are part of the same paper. I can't imagine a listing application to a second page which is entitled "Summary Statement."

MR. WOLLEN: Also the second does not complete the second page.

JUDGE BARNES: Re-offer Commission Exhibit 192 at a later date.

MR. TOPKIS: I think we have already discussed 193. That was the affidavit of Dr. Muller that you rejected this morning. After that, I have nothing until 198.

MR. WOLLEN: Nor do we.

MR. YOUNGWOOD: 194, 195 and 196 have been withdrawn by complaint counsel. So we would offer 197.

MR. TOPKIS: No objection.

MR. NEWCOMB: No objection.

JUDGE BARNES: I will receive Commission Exhibit 197

in evidence.

(The document referred to, heretofore marked for identification as Commission Exhibit 197, was received in evidence.)

MR. TOPKIS: 198, Judge, is a letter to one of our representatives from a secretary called Oxygen Equipment. I do not object to it for non-hearsay purpose, but for hearsay purposes, I would.

JUDGE BARNES: I will receive Commission Exhibit 198, it is a letter received from British Oxygen. I guess it has the enclosures mentioned in here, but they have sort of vanished.

I will receive 198.

(The document referred to, heretofore marked for identification as Commission Exhibit 198, was received in evidence.)

MR. YOUNGWOOD: We have omitted 199, 200, 201 and 202.

MR. TOPKIS: We come to exhibit 203 and I will hand Your Honor a copy.

This, of course, is a piece of literature which comes from a distinguished source, but it is a forecast, and it is written by somebody. I think if complaint counsel want forecasts into this case, they ought to bring in w oever prepared this and subject them to cross-examination rather than being unidentified by some unidentified forecaster or estimator.

JUDGE BARNES: What is the purpose of the offer of

203?

MR. THURMAN: Your Honor, I think for the purpose of this -- this is a government publication -- first, as to purpose, it describes the market we have been discussing here today and the many issues with respect to shipments and the value of entry shipments, what type of growth is shown and some of the uses, I believe, and it is just an outlook on industry gases by Chemcode 2813.

As far as admissibility, I think this is a document of which Your Honor can take judicial notice.

JUDGE BARNES: Is there really only one page that applies to natural gas?

MR. THURMAN: Your Honor, we will withdraw this if there are problems.

(The document referred to, heretofore marked for identification as Commission Exhibit 203, was withdrawn)

JUDGE BARNES: How about 204. Is that in the same category?

MR. TOPKIS: I believe so.

MR. THURMAN: Your Honor, I know you would like to speed up this trial, but I wonder if Your Honor would consider adjourning for the day. I would like to get a little more familiarity with the documents we have put in.

Mr. Youngwood can go ahead with it, but as senior counsel of the trial, before we go on, I would like to

familiarize myself even more with these documents. I am not at all that familiar with them. If Your Honor wants to go on, Mr. Youngwood would take over, or if you don't mind going solely. I cannot respond rapidly.

JUDGE BARNES: I will adjourn. We can cover them in the breaks next week. We will adjourn until 9:30 tomorrow morning.

(Whereupon, at 3:45 p.m. the hearing was recessed to reconvene for further hearing at 9:30 a.m., Friday, May 10, 1974.)

* * *

C O N T E N T S

WITNESSES

FOR THE COMMISSION:	DIRECT	CROSS	REDIRECT	RECROSS
C. D. L. Perkins	778	799		
Robert S. Johnson	826	840		

EXHIBITS

COMMISSION:	IDENTIFIED	RECEIVED
207-A thru E	---	817
208-A thru Z-16	---	819
209 thru 211, 213 thru 219, 221 thru 230	---	819-820
212 and 220(withdrawn)pg. 820		
232-A thru Z-47(in camera)	---	821
233-A thru C and 234	---	821
236-A and B, 242 thru 251, and 253	---	822
254-A thru S(in camera)	---	823
255-A and B(in camera)	---	824
257 thru 266	---	824
267-A and B, and 268	---	875

BEST COPY AVAILABLE

BEFORE THE

FEDERAL TRADE COMMISSION

IN THE MATTER of		
BRITISH OXYGEN COMPANY, LTD., BOC FINANCIAL CORPORATION, BOC HOLDINGS, LTD., BRITISH OXYGEN INVESTMENTS, LTD., AIRCO, INC.	:	Docket No. 8955

Room 7314, 1101 Building,
414 Eleventh Street, N.W.,
Washington, D. C.,
Friday, May 10, 1974.

Met, pursuant to recess, at 9:30 a.m.

BEFORE:

ERNEST G. BARNES, Presiding Administrative Law Judge.

APPEARANCES:

K KEITH THURMAN, GORDON YOUNGWOOD, DON PURCELL, DARYL NICKEL, RHETT McRULLA and JOHN HOAGLAND, on behalf of the Federal Trade Commission.

JAY H. TOPKIS, LEWIS A. KAPLAN and MOSES SILVERMAN, Paul, Weiss, Rifkind, Wharton and Garrison, 345 Park Avenue, New York, New York 10022, on behalf of Respondent, British Oxygen Company, Ltd.

GEORGE J. WADE, R. BRUCE MacWHORTER and DANFORTH NEWCOMB, Shearman and Sterling, 53 Wall Street, New York, New York 10005, on behalf of Respondent, AIRCO, Inc.

PROCEEDINGS

JUDGE BARNES: Do we have a witness, Mr. Thurman?

MR. THURMAN: Yes, Your Honor.

MR. KRULLA: Complaint Counsel calls Mr. Perkins to the stand.

C. D. L. PERKINS was thereupon called as a witness for the Commission and, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By Mr. Krulla:

Q Could I have your home address for the record?

A 1120 Bryn Lawn , Villanova, Pennsylvania.

Q Mr. Perkins are presently employed?

A Yes.

Q In what capacity?

A In several capacities.

Q Could you indicate or list the companies in which you are employed presently?

A Yes, I am Executive Vice President of Burdett Oxygen company. With Headquarters in Norristown, Pennsylvania. And President of Burdett Oxygen of Syracuse, Incorporated, with headquarters in Syracuse, New York. Executive Vice President of Keystone Cylinder Corporation, headquarters in Philadelphia, Pennsylvania. I am Chairman of the Board of a company in Charlotte, North Carolina called Worco, Incorporated, and I

2

an President of Narox, Incorporated, headquarters in Hopwell, Virginia.

Q What are the businesses of each of those companies? Could you indicate which of these are involved in the industrial gas industry, if any?

A All except Welco and they are related products, but not gas.

JUDGE BARNES: Is that it, W-e-l-c-o? Is that it too, Welder Research Corporation?

THE WITNESS: The name was changed last year, it was Welder.

By Mr. Krulla:

Q Is there any relationship between any of these companies?

A What do you mean?

Q Aside from your own personal position in each of the companies are some of these companies subsidiaries of other companies?

A Yes.

Q Which would those be?

A Narox is, 50 percent of the stock is owned by Burdett Oxygen Company of Norristown.

Q And who owns the other 50 percent?

A That is National Welders Supply Company, Charlotte, North Carolina.

Q How long have you been Executive Vice President of Burdett of Charlotte?

A Since 1962.

Q What was your previous position?

A I was the Regional Manager of Airco in Pittsburgh, Pennsylvania.

Q How long did you hold that position?

A That particular one, six weeks.

Q Prior to holding that position with Airco, your previous position was?

A District Manager of the Metropolitan New York area.

Q How long have you been in the industrial gas business?

A Since 1950.

Q And what are your responsibilities as Executive Vice President of Burdett Oxygen Company?

A I would say I am Chief Operating Officer of the Corporation.

Q Are you familiar with the term industrial gases?

A Yes.

Q What does that term mean to you?

A Probably the gases that I am involved with as far as manufacturing and selling.

Q What gases would those be?

A The gases, oxygen, nitrogen and other gases associated. Hydrogen, helium some medical gases nitrous oxide, some fuel gases except propylene. That generally covers it.

Q Does Burdett Oxygen Company produce all of these gases?

A No.

Q Which companies produce them?

A Narox. The 50 percent subsidiary produces oxygen and nytogen. Burdett Oxygen Company produces only acetylene.

Q Would you include carbon dioxcide in your definition of industrial gases?

A Partially, sort of.

Q To what extent?

A I think it probably is an industrial gas, but doesn't fall under the same connotation as the others.

Q It is used for different purposes?

A Some similar and some different.

Q Carbon monoxide?

A I know nothing about that.

Q What industrial gases does Burdett Oxygen Company market?

A All of those that I have mentioned except carbon monoxide.

Q Would you count carbon monoxide as an industrial gas, however?

A I would assume so.

Q What products facilities does Burdett Oxygen have?

A Acetylene manufacturing plant in the Philadelphia area.

Q Is that only one plant?

A One plant.

Q And the capacity of that plant.

A Three million cubic feet a month.

Q What industrial gas production facilities does Narox have?

A They have an air separation plant producing oxygen and nitrogen.

Q The capacity of that plant.

A 75 tons of liquid product osygen and nitrogen and approximately 200 tons of pipeline nitrogen.

Q Per day?

A per day.

Q Does the Narox plant produce argon?

A No.

Q Was the Narox plant designed to produce argon?

A Yes.

Q What is the reason why it does not produce argon?

A Mechanical reasons.

Q Was this Narox plant purchased by Narox, Incorporated or the parent companies or did they have it built?

A A separate corporation was established with the ownership I described and the corporation entered into a contract to build the plant.

Q And when was that plant put ont stream?

A 1969.

JUDGE BARNES: Mr. Perkins, I am not sure what Narox is Narox.

THE WITNESS: Narox is an ingenious name that is

nitrogen, argon and oxygen, sometimes nox because it produces no argon.

JUDGE BARNES: What does Narox do?

THE WITNESS: It is a producer of these products and is a manufacturing industry.

JUDGE BARNES: Does it sell its entire output to Burdett?

THE WITNESS: It sells half to Burdett and half to National Welders and its liquid products and the pipeline to Allied Chemical at three different locations.

JUDGE BARNES: To your knowledge is the Narox plant the only industrial plant which, though designed to produce argon, does not ?

MR. TOPKIS: In the World?

MR. KRULLA: The United States gas industry.

MR. TOPKIS: How can the witness know that?

MR. KRULLA: I am asking the witness if he knows?

THE WITNESS: Yes.

MR. KRULLA: To your knowledge, is Narox the only plant?

THE WITNESS: It is not.

By Mr. Krulla:

Q Can you list some other plants?

A I could list at least one.

Q Could you tell us what plant?

A The Joliet plant. The same manufacturer has the same problem.

Q That is not Burdett of Norristown?

A No.

Q Is that Burdett of Cleveland?

A Yes.

Q Could you tell us the total net sales of industrial gases for Burdett of Norristown in Calendar 1972, in dollars.

A Just industrial gases?

Q Yes, as you have defined them.

A With some minor corrections, I guess $2,679,226.26

Q Thank you.

Can you tell us the FOB dollar value of shipments of industrial gases of Burdett's own production?

A I think the figure I would tell you would be subject to some mild variation.

Q We don't need detail to the same extent you have just provided us.

A You are asking for ---

Q As good an estimate as you could would suffice.

A I would estimate a million and half dollars.

MR. TOPKIS: Are we talking about acetylene?

By Mr. Krulla:

Q Are we counting Burdett production by Burdett Oxygen Company, where Burdett Oxygen performs some production process,

perhaps converting the form of the gas; is that included?

A Yes.

MR. TOPKIS: May I have voir dire? I am lost.

JUDGE BARNES: Mr. Perkins, I understand you only manufactured acetylene.

THE WITNESS: Correct.

JUDGE BARNES: And what would you FOB plant manufacturing of that product? This is not the resale value; it is the plant value.

THE WITNESS: $250,000.

By Mr. Krulla:

Q For Calendar year 1972?

A Yes.

Q Can you tell us for Narox, the FOB value of plant shipments of industrial production?

A Including pipeline products?

Q Yes.

A $850,000.

Q That is FOB plant?

A That is correct, in 1972.

nd bc

Q And total dollar value of shipment from Narox?

A Same figure. Narox shipped none.

Q What was the total dollar value of shipments for Burdett Oxygen Company for 1972?

MR. TOPKIS: Of what?

MR. KRULLA: Industrial gases.

MR. TOPKIS: Don't we have that already? Isn't that the $2.6 million?

THE WITNESS: Will you ask that question again?

By Mr. Krulla:

Q That figure is the same as the net sales figure?

A Yes.

Q Is Burdett Oxygen Company planning any new plant construction?

A Yes.

JUDGE BARNES: Is this publicly known?

THE WITNESS: No, sir.

JUDGE BARNES: It is not?

THE WITNESS: No, sir.

By Mr. Krulla:

Q Is this plant an air separation plant?

A Yes, it is.

Q Is the Industrial Gas Industry a growth industry at present according to your business knowledge and your experience in the Industrial Gas Industry?

A Yes.

MR. TOPKIS: I take it this calls for the witness' estimate in the area in which he operates?

JUDGE BARNES: Will this be limited to the area in which you operate, Mr. Perkins?

THE WITNESS: I would assume the majors of the pipeline would come from there, but I believe scope is a little large than that.

By Mr. Krulla:

Q What is the supply/demand situation in Industrial Gases in the United States at present?

MR. TOPKIS: In the United States?

MR. KRULLA: Or in the market in which you operate.

THE WITNESS: The product is in very short supply.

JUDGE BARNES: In which area?

THE WITNESS: In the area in which we operate.

By Mr. Krulla:

Q How long has that been the case?

A A year.

Q In what area of the country does Burdett Oxygen market?

A Virginia, Maryland, Washington, Pennsylvania, New Jersey and New York State.

Q Although I understand Narox sells through pipelines, in what area would those sales be?

A The State of Virginia.

Q And the length of that pipeline?

A Eight miles.

Q Is Burdett Oxygen Company available for sale today?

A Certainly.

Q Was Burdett Oxygen Company available for sale in 1973?

A Certainly.

Q To your knowledge, is Burdett Oxygen Company the only company in the United States in the industrial gas industry that is available for sale?

MR. TOPKIS: Objection, Your Honor.

JUDGE BARNES: Does he have any firsthand information? I think you should ask that.

By Mr. Krulla:

Q Do you have any knowledge as to whether Burdett Oxygen Company is the only company in the United States available for sale?

MR. TOPKIS: I object to that question. Your Honor said firsthand knowledge.

Mr. Krulla:

Q Do you have any firsthand information that would lead you to believe ----

Mr. TOPKIS: No.

By Mr. Krulla:

Q Do you have any firsthand information that Burdett Oxygen is the only company for sale in the United States in

the industrial gas industry?

JUDGE BARNES: Ask him if he has any firsthand knowledge that any other industrial company was for sale in 1973.

THE WITNESS: Those other companies I have mentioned are for sale, certainly.

By Mr. Krulla:

Q Do you have any firsthand knowledge as to the availability for sale of any other companies in the United States industrial gas industry?

A I think that there are a number of companies that are for sale. I don't have any firsthand knowledge.

JUDGE BARNES: We will have his answer stand.

By Mr. Krulla:

Q Is Burdett Oxygen Company a member of any trade associations in the industrial gas industry in the United States?

A Yes.

Q Would you name those associations?

A CGA, IOMA, NWSA.

Q Is NWSA known by another name?

MR. TOPKIS: It is NWSA and, I object. National Welder is out of the case.

JUDGE TOPKIS: If that in that it is, let's leave that out.

By Mr. Krulla:

Q Have you held any official position with any of these trade associations?

A Yes.

Q Have you held any official position with IOMA?

A Yes.

Q What was your most recent position? Are you currently holding an official position?

A I am in charge of a committee currently.

Q What was your last previous executive position with IOMA?

A Chairman of the board.

Q When?

A 1972.

Q And your last previous position prior to being Chairman of the board?

A President.

Q The date?

A 1971.

Q What committee of IOMA are you currently Chairman?

A Long Range Planning.

Q Your responsibilities or your activities as Chairman of Long Range Planning Committee of Ioma would include what activities?

A Long range planning.

Q Is that for the industrial gas industry?

A I would say for IOMA.

JUDGE BARNES: Is it limited to the industrial gas long range planning?

THE WITNESS: And associated producers of equipment.

By Mr. Krulla:

Q Mr. Perkins, did you meet with an official of the British Oxygen Company in July of 1971?

A Yes.

Q Who was that official?

A Mr. Williams.

Q Do you recall his first name?

A I think it was John.

Q Do you recall his position with the British Oxygen Company?

MR. TOPKIS: He was and is a managing director.

MR. KAPLAN: Could Mr. Perkins keep his voice up.

By Mr. Krulla:

Q Where was this meeting held?

A In London.

Q At whose office in London?

A Mr. William's office.

Q Mr. William's office at BOC?

A Yes.

Q What was the topic of conversation at that meeting?

A There were a number of topics.

Q What was the primary purpose of the meeting?

MR. TOPKIS: Objection, Your Honor. Who said what to whom?

JUDGE BARNES: I think you should ask him if a specific subject matter in which he was interested was discussed.

By Mr. Krulla:

Q Was the topic of acquisition of Burdett Oxygen Company by the British Oxygen Company discussed at that meeting?

A Yes.

Q What was the length of that meeting?

A Several hours.

Q Was the topic of acquisition of the Burdett Oxygen Company the main topic of the discussion in terms of time spent on subject areas?

MR. TOPKIS: Objection, Your Honor. Isn't that discussing possible acquisition?

By Mr. Krulla:

Q How much time was spent discussing possible acquisition of Burdett Oxygen Company?

A About half the time.

Q Did you and Mr. Williams discuss possible acquisition by BOC of any United States Industrial Gas Companies other than Burdett Oxygen Company?

A Yes.

Q Can you list those companies?

A Those same companies that I have mentioned before that I am affiliated with and, in addition to that, some other regional industrial gas producers.

Q Which producers would those be?

A National Welding, Selox, Alabama Oxygen and Gulf Oxygen.

Q Was there any followup taken by BOC subsequent to this meeting?

A Yes.

Q And what was that followup?

A Several months later they sent a man to Philadelphia to discuss the situation further.

Q Do you recall the name of the individual?

A His name was Ian Temple Roberts.

Q Do you recall what his position was with BOC?

A No.

Q Do you recall if he was an executive with BOC?

A I wouldn't think so.

Q To your knowledge, did Mr. Temple Roberts visit you in Philadelphia of his own accord or on his own behalf.

A No.

Q On whose behalf did he visit you?

A British Oxygen.

Q Did British Oxygen Company indicate to you at any time

prior to this meeting with Mr. Roberts that Mr. Roberts would be representing British Oxygen Company?

A Yes.

Q And who made that indication to you?

A MR. TOPKIS: Excuse me, Your Honor. I think Mr. Perkins has a letter he is referring to and it is Exhibit 116 and I think it is in evidence.

MR. KRULLA: I withdraw the question.

JUDGE BARNES: All right.

By Mr. Krulla:

Q Do you recall if any BOC official other than Mr. Williams or Mr. Roberts communicated with you regarding the topic of possible acquisition of BOC of Burdett Oxygen Company by BOC?

A I believe there was one communication from Mr. Pitts saying Mr. Roberts is coming to see me.

MR. TOPKIS: Does Your Honor want to see the letter?

JUDGE BARNES: Thank you, Mr. Topkis.

By Mr. Krulla:

Q How long did Mr. Roberts spend visiting Burdett Oxygen Company?

A I think three or four days.

Q Did he meet with any people from Burdett Oxygen Company other than yourself?

A Yes.

Q Who are those people?

A Our controller.

Q Anyone else?

A Our President.

Q Did he meet with any managers of Burdett Oxygen Company?

A I think he probably did, since we are so small, he probably met them all. It would be difficult not to meet them all.

Q Did Mr. Roberts inspect the plant and headquarters facilities of Burdett Oxygen Company?

A Yes.

Q Did Mr. Roberts inspect the books and record of Burdett Oxygen Company?

A Yes.

Q Did Mr. Roberts receive from you any references?

JUDGE BARNES: As to what?

MR. KRULLA: As to Burdett Oxygen Company's reputation, position, credit standing.

THE WITNESS: Yes.

by Mr. Krulla:

Q Was the purpose of Mr. Robert's inspection of the books and records of Burdett and the plant facilities of Burdett the possible acquisition of Burdett Oxygen Company?

MR. TOPKIS: Objection.

JUDGE BARNES: How long are we going to continue this? He visited everybody in the company. He examined the plant. Where are we going?

MR. KRULLA: We are almost finished, Your Honor.

By Mr. Krulla:

Q Do you know whether any of the references provided by you to Mr. Roberts were subsequently contacted by BOC?

A I believe they were.

MR. TOPKIS: I did not hear the answer.

THE WITNESS: I believe they were.

By Mr. Krulla:

Q In your business judgment if BOC had followed through with the proposed acquisition of Burdett Oxygen Company and other companies which were discussed for which acquisition was discussed, could BOC have developed a significant national competitor in the United States industrial gas market?

MR. TOPKIS: Objection.

JUDGE BARNES: Objection sustained.

By Mr. Krulla:

Q In your business judgment was acquisition ---

MR. KRULLA: Your Honor, could I have the reason for the objection?

JUDGE BARNES: I think you are asking him an ultimate question which will have to be determined by me and this person is not the proper person to ask this. He may be an interested party. He undoubtedly wanted to sell his company and I think his answer might be colored with that. He is a small regional operator. I don't think he is qualified to answer that question.

MR. KRULLA: I think Mr. Perkins is qualified to answer from his judgment as to the potential of a small producer.

JUDGE BARNES: You think this is an ultimate issue.

MR. KRULLA: I have no further questions, Your Honor.

MR. TOPKIS: With Your Honor's permission, Mr. Kaplan will examine Mr. Perkins.

A 1717

CROSS-EXAMINATION

By Mr. Kaplan:

Q Does Burdett or Morristown sell propane?

A Yes.

Q Do you regard propane as an industrial gas?

A I don't.

Q You do not? You said you do not?

A I do not.

Q But propylene is an industrial gas?

A My connotation of both of those products is a fuel gas.

Q I think you said propylene and other gasses were fuel gasses?

A Yes.

Q So propane would also be regarded as an industrial gas, isn't that correct?

A Perhaps if you twist it around that way, yes.

Q Mr. Perkins, I believe you said that you were affiliated with Burdett Oxygen Company of Syracuse?

A Yes.

Q Burdett of Syracuse is a subsidiary of Burdett Holding Corporation?

A No.

Q Does Burdett Holding Company own any interest in Burdett of Syracuse?

A No.

Q Does it own any interest in Keystone?

A No.

Q Does it own any interest in Narox?

A No.

Q But it did in 1973 as to all of those companies, did it not?

A No.

Q What relationship does Burdett of Norristown have with Burdett Holding Corporation?

A Burdett Holding Corporation owns the majority of stock in Burdett of Norristown.

Q Do any of the other companies you just mentioned have any connection with the Burdett Holding Corporation?

A If Burdett of Norristown is owned by the holding company, then Burdett of Norristown owns 50 percent of Narox and the holding company owns a part of Narox.

Q Is there any relationship between Burdett of Norristown and Burdett of Syracuse?

A Some common stockholders.

Q How much of the stock of Burdett of Syracuse is owned by the same stockholders who hold stock in Burdett of Norristown?

A That is a very difficult question -- as much as 50 percent, more than 50 percent.

Q Maybe we can simplify this whole line of inquiry.

Would you describe the relationship between Burdett of Norristown, Burdett of Syracuse, Keystone-Cylinder Gas, WERCO and

Marox and Burdett Holding Corporation?

MR. KRULLA: Mr. Perkins has already answered this on direct examination.

JUDGE BARNES: I am not so clear about the ownership.

MR. KRULLA: As to WERCO, we have determined its activities are not related to the industrial gas industry.

JUDGE BARNES: You brought out something about WERCO on direct. Why did you mention it? You may proceed, Mr. Kaplan.

By Mr. Kaplan:

Q Could you describe those relationships, Mr. Perkins?

A The stock relationships?

Q Stock relationships for a starter, yes.

A Generally speaking, I am the chief operating officer of those companies. From the standpoint of product exchange, there is some but very, very minor because of the distances involved.

Marox, which we start with, is a producer of the products which are sold to the others. WERCO is a purchasing arrangement to buy industrial gas equipment, supplies, welding products, et cetera, which in turn Burdett happens to be one of the purchasers and so is Keystone and Syracuse of these products from WERCO.

The stock relationship is the two minority stockholders in Norristown's operation are principal stockholders in the Syracuse operation. The minority stockholders in the Norristown operation are also minority stockholders in the Keystone-Sylvester Gas Corporation.

Burdett Oxygen Company owns approximately 8 percent of the stock of WERCO. I have described previously the stock ownership in Narox.

Q Who are the minority stockholders in Burdett who own the majority of the stock of Burdett of Syracuse?

A Robert McCormack and myself.

Q That is also true of Keystone, you and Mr. McCormack own the stock of Keystone, right?

A Yes.

Q I think you had indicated that there had been shortages in industrial gasses that had developed in the vicinity of the Narox plant, is that correct?

A I think in much broader scope and region than the vicinity of the Narox plant.

Q What areas does the Narox plant serve, what radius?

A Approximately several hundred miles.

Q What radius from Burdett of Norristown does your company serve?

A Approximately 100 miles.

Q The shortages that you referred to before were in those areas and perhaps others, is that correct?

A Yes.

Q They had developed within the last year, I think you said?

A Yes.

Q The Narox plant came on stream in 1969, is that correct?

A Yes.

Q You contracted for the construction of the Marox plant when, Mr. Perkins?

A 1967, I believe.

Q There was no shortage in the vicinity of the Marox plant in 1967, was there?

A I would say that is not true.

JUDGE BARNES: There was a shortage?

THE WITNESS: There was.

By Mr. Kaplan:

Q Of any particular gasses?

A I would say nitrogen.

Q There was either under construction or in existence near the Marox location in 1967-1968-1969 an Allied Chemical plant, is that right?

A Yes.

Q That plant uses nitrogen?

A Yes.

Q That plant accounted for whatever shortage there was in the area, is that right?

A Right.

Q You obtained a contract to supply nitrogen to that plant?

A Yes.

Q And that nitrogen is supplied from Marox?

A Yes.

Q Via the pipeline you mentioned earlier?
A Yes.
Q When was the Allied Chemical plant opened?
A I believe in 1954.
Q And it had been obtaining its nitrogen from where prior to the opening of the Narox plant?
A Primarily inert gas generators.
Q Allied Chemical generated their own nitrogen?
A Most of it.

MR. KRULLA: Your Honor, this is outside the scope of direct examination.

JUDGE BARNES: I think it is proper cross-examination.

By Mr. Kaplan:

Q Will you tell us what an inert gas generator is?
A Are there various use types that take source gasses like natural gas and break it down into its parts and make products from that supply?
Q In particular the number of inert gas generators at the Allied Chemical plant in -- what type inert gas generators are those?
A Kemp.

MR. KRULLA: I object.

JUDGE BARNES: You brought out on direct examination there was a shortage. Now Mr. Kaplan is exploring that. How did the shortage develop and how can it be filled? I think it is proper cross-examination.

By Mr. Kaplan:

Q Those inert gas generators are capable of producing a mixture of nitrogen and carbon dioxide, is that right?

A Yes.

Q That is what they are used for, is that correct?

A I am not sure.

Q What were they used for by Allied Chemical prior to the time Narox took over the supply of nitrogen to that purpose?

A To produce low-purity nitrogen for their use.

Q The principal impurity in the nitrogen that was generated at the Allied Chemical plant by the inert gas generators was carbon dioxide; is that right?

A I am not sure what the percentages were, so I am not sure if it is principal or not.

Q What does it use nitrogen for?

A Primarily batching and blanketing.

Q Mr. Perkins, I believe when you were questioned about your sales figures of various descriptions on direct, you had reference to some computer output that you have with you.

A Yes.

MR. KAPLAN: May I ask if I can take a look at that for purposes of cross-examination?

JUDGE BARNES: Do you have any objection to Mr. Kaplan seeing those?

THE WITNESS: None whatsoever.

By Mr. Kaplan:

Q Mr. Perkins, I think you told us that your total sales of industrial gasses in 1972 were $2,679,226.26, is that right?

A You are reading now. I believe that is correct.

Q That is the number on this sheet.

That figure included some sales of lime slurry as reflected on this sheet, is that right?

A That is correct.

Q And it included sales of propane?

A Yes.

Q And it included sales of compressed air?

A Yes.

Q Do you regard compressed air and industrial gas?

A Yes.

Q It also included charges for facilities fees, did it not?

A Yes, it did.

Q What are the facilities fees that are included in that figure you gave us?

A Charges for customer stations.

Q That is for holding tanks and the like that your company owns and places on customer premises?

A Yes.

Q Are the sales figures included on the sheet to which you referred on direct inclusive of delivery charges?

A Some are and some are not. I think I mentioned that those

figures were subject to some minor adjustments based on some of those things that you have mentioned that were not truly industrial gasses. They are very minor portions of the total.

Q I believe you gave us a figure for your FOB plant value of industrial gas sales in 1972. What was that number?

A I don't recall.

Q Can you estimate for us what that was?

A Are you talking about those products not including acetylene or are you talking about those products that are manufactured by Burdett? The issue is very confusing concerning what the various questions have been.

Q Let's take manufacturing by Burdett of Norristown. Do they manufacture only acetylene?

A That is correct.

Q What was the FOB ---

A $250,000.

Q That is the FOB palnt value of the acetylene?

A That is why my estimate was based on, the figure you saw there.

Q Your actual sales figures of acetylene included in some instances delivery charges?

A Yes.

Q In instances the figures included in your total sales figures do not include delivery charges. They are FOB prices?

A The products are picked up at the plant.

Q How do you arrive at a figure for the FOB value of the acetylene? I take it you don't ordinarily keep such records.
A Yes.
Q How do you arrive at those figures?
A I was estimating them based on the manufacturing costs.
Q Mr. Perkins, I think you said that you and the other companies with which you were affiliated were available for acquisition in 1973, is that right?
A Yes.
Q Do you know of any company at all that for the right price is not available for acquisition?
A I don't.
Q Reverting to the last area of inquiry, I think we also had a figure from you for the FOB plant value of shipments of industrial gasses manufactured by Narox?
A Yes.
Q I think that was $850,000?
A That is correct.
Q Narox sells its products in several different modes of delivery, does it not?
A Yes.
Q It sells gaseous nitrogen down a pipeline, is that correct?
A Yes.
Q Your actual invoice prices for the gaseous nitrogen sold through the pipeline are inclusive of delivery, is that right?

A Inclusive, yes, I would say.

Q You don't make a separate charge on your bill to Allied Chemical for costs of delivering down the pipeline?

A No, we don't.

MR. KRULLA: Your Honor, would respondent counsel please not cut off the witness' answer. I don't believe the witness finished answering the question.

JUDGE BARNES: Be careful, Mr. Kaplan.

MR. KRULLA: Could we read back the question?

JUDGE BARNES: The question and the answer.

(The reporter read the question and answer.)

JUDGE BARNES: I think that question called for a "yes" answer.

By Mr. Kaplan:

Q Does Narox sell gaseous nitrogen to anyone other than pipeline customers?

A Yes.

Q Doesnit sell gaseous nitrogen other than down the pipeline except anyone but National Welders and Burdett of Norristown?

A No.

Q In other words, Narox supplies gaseous nitrogen down the pipeline to the companies that own it?

A No.

Q Other than through the pipeline, Narox sells gaseous nitrogen, is that correct?

A No.

Q Does it sell gaseous oxygen to anyone?

A No.

Q I guess it does not pipeline gaseous oxygen anywhere?

A No

Q It sells liquid oxygen?

A Yes.

Q Does it sell liquid oxygen to anyone but Burdett of Norristown and National Welders?

A No.

Q Does it sell liquid nitrogen to anyone but those two companies?

A No.

Q How is the price of the liquid nitrogen that it sells to Burdett and National Welders determined?

A It was determined by Narox' Board of Directors based on cost and prices in the marketplace that one might buy comparable volumes.

Q That Board of Directors split solely between National Welders and Burdett of Norristown?

A Yes.

Q So the sales prices of liquid product by Narox are wholly within the control of Burdett of Norristown and of National Welders acting together?

A Yes.

Q Just to make sure we have the record absolutely clear on this, is there any connection whatsoever between Burdett of Norristown and Burdett of Cleveland?

A None.

Q Over the years have you had discussions with any companies other than British Oxygen regarding acquisition of Burdett?

A Yes.

Q You, in fact, have been approached by and discussed acquisition with AGA of Sweden, have you not?

A Yes.

Q In fact, AGA personnel spent several weeks looking over the Burdett of Norristown operation, is that right?

A Yes.

Q You have had discussions regarding acquisition with Messer Greisheim of Germany, is that right?

A I would say "no."

Q You have had discussions regarding acquisition of Burdett with a company called UGI, is that right?

A Yes.

Q What is the full name of UGI?

A UGI.

Q Did it formerly operate under the name United General Industries?

A United Gas Improvement.

Q What business is UGI in?

A It is a public utility in Philadelphia principally.

Q A power generating facility?

A Natural gas.

Q Have you ever had discussions with Linde of Germany regarding joint business ventures in the United States?

A Mildly so, yes.

Q Have you ever had any discussions regarding acquisition of Burdett or regarding joint business ventures in the United States in the gases field with any other companies?

A Yes.

Q Just to make sure the record is straight, the joint business ventures you discussed with Linde of Germany were in the industrial gasses field in the United States, were they not?

A I must clarify -- merely saying discussion, no more than that, idle conversation or discussion.

Q But regarding the industrial gasses field in the United States?

A Yes.

Q Coming to your discussions with BOC in 1971, Calcium Carbide is used by Burdett of Norristown in generating acetylene?

A Yes.

Q BOC has a Norwegian subsidiary called ODDA?

A Yes.

Q ODDA is a source of calcium carbide?

A Yes.

Q On the occasion in 1971 when you went to Europe and saw

Mr. Williams in London, you had prior to the visit to London visited ODDA in Norway, had you not?

A Yes.

Q The purpose of your visit to ODDA was to obtain calcium carbide, is that correct?

A Yes.

Q While you were discussing the purchase of calcium carbide in Norway with ODDA, someone in ODDA suggested to you that you speak to someone at BOC in London about buying calcium carbide?

A Yes.

Q You went to England?

A Not directly.

Q You went to Sweden in between?

A Right.

Q One of your customers for nitrogen on your Virginia pipeline is Imperial Chemical Industries?

A Yes.

Q An English company?

A Yes.

Q While you were in England, you spoke to people at ICI?

A Yes, we did We were negotiating a contract at that time.

Q You spoke to a gentleman named Luther Holbrook at a company called Chesterfield Tube, is that right?

A That is close. It is Lacey-Holbut, and that is a hyphenated name.

Q It was Lacey-Holbut who suggested that you talk to John Williams at BOC, is that right?

A That is correct.

Q In fact, he made the appointment?

A I am not sure about that.

Q You had not gone to England with the idea of talking to John Williams about acquisition of Burdett, had you?

A No.

Q You discussed various other things with John Williams on the occasion of your trip to London, is that right?

A Right.

Q At that time you were the president of IOMA?

A Right.

Q One of the reasons you visited John Williams was to have British Oxygen join IOMA?

A Right.

Q And the possible acquisition of Burdett came up with John Williams on a spur of the moment business?

A Yes.

Q It was your suggestion, not Mr. Williams', is that correct?

A That is correct.

Q Mr. Williams' response to your suggestion was that BOC would take a look at your company, is that right?

A Right.

Q He did not say British Oxygen was coming to enter the

industrial gasses field in the United States, did he?

A Would you repeat that question?

Q Mr. Williams did not tell you during that meeting that BOC had decided to enter the industrial gasses field in the United States, did he?

A I don't know if he did or did not.

Q In fact, during that discussion Mr. Williams told you that BOC had interests in Europe, is that correct?

A Yes.

Q And had interests for the future in Africa -- he told you that?

A Yes.

Q Following that meeting in London and following Mr. Temple Roberts' business trip to Norristown, you received a letter from British Oxygen, did you not, in November?

A Yes.

Q I show you a copy of complaint counsel Exhibit 117 and ask you if that is not the letter that you received?

A Yes.

MR. KAPLAN: No further questions.

MR. WOLLEN: We have no cross-examination, Your Honor.

MR. KRULLA: We have no further questions, Your Honor.

JUDGE BARNES: Mr. Perkins, thank you very much.

(Witness excused.)

JUDGE BARNES: We will take a ten-minute recess.

(Whereupon, a brief recess was taken.)

JUDGE BARNES: Are we ready to resume with documents?

MR. YOUNGWOOD: Not quite yet, Your Honor.

JUDGE BARNES: I believe we left off at Commission Exhibit 203.

MR. TOMKIS: After examining 203 and 204, we are prepared to withdraw our objection.

MR. THURMAN: I was just going to comment on the schedule. I would like to bring Your Honor up to date.

I don't see how we can move these people up from the third week. We have tried, but I think the best way would be to eliminate as much as possible and consolidate next week. Maybe we could have hearings just a couple of days next week.

JUDGE BARNES: That would be preferable to operating a quarter of a day or half a day.

MR. THURMAN: I will try to close up the schedule so you can have more time. Possible we might be cancelling two or three witnesses next week.

JUDGE BARNES: You can make Friday a free day. They could go back to New York on Thursday.

MR. TOMKIS: That would be very helpful.

I spoke too fast. We withdraw our objection to 203, but we would object to 204.

MR. YOUNGWOOD: We have withdrawn 203, so we can discuss 204.

JUDGE BARNES: It would be easier for me if you withdrew 204 and offered 203.

What is the objection to 204, Mr. Topkis?

MR. TOPKIS: First, Your Honor, it relates to 1970, which is a year with which I don't think we are concerned here.

May I show Your Honor a copy?

JUDGE BARNES: Yes.

Mr. Youngwood, what pages were you interested in really offering out of this document?

MR. THURMAN: I will respond to that, Your Honor, if I may. We are only interested in 2813, SIC Category. The code says 2813 is industrial gasses. One I see is 2204-V.

JUDGE BARNES: I see the page now.

You have one figure for industrial gasses in 1970. You have total shipments and percentage of four largest companies.

MR. THURMAN: Yes.

JUDGE BARNES: You have called all of these largest companies as witnesses, I take it?

MR. THURMAN: Yes.

JUDGE BARNES: You have the actual shipments.

MR. THURMAN: This is an indication. I believe the Commission has held in AVNET that the Census is the type the Judge would give judicial notice to. We would ask you to give judicial notice to this as to reliability. I could bring that decision in.

JUDGE BARNES: I would like to read it.

MR. THURMAN: It was an interlocutory appeal to AVNET.

JUDGE BARNES: Reoffer it after I have a chance to study it.

I take it you will give us the citations to the opinion you are referring to?

MR. THURMAN: Yes, in fact, I will bring a copy over.

JUDGE BARNES: I have the books.

MR. THURMAN: Maybe it is published. I have not seen it in the books, but I will get the citation for you.

JUDGE BARNES: If you have a copy of the opinion, make a copy for Mr. Topkis and for me.

MR. NEWCOMB: And a copy for AIRCO.

JUDGE BARNES: We are at 205?

MR. TOPKIS: No objection to 205, 206 or 207.

MR. YOUNGWOOD: We have withdrawn 205 and 206. We would offer for introduction into evidence 207, if there is no objection on the part of AIRCO.

MR. NEWCOMB: No objection.

JUDGE BARNES: I will receive Commission Exhibit 207-A through E in evidence.

XXXX (The document heretofore marked for identification Commission Exhibit 207-A through 207-E was received in evidence.)

MR. TOPKIS: As far as 208 is concerned, if counsel are ready to discuss it ---

JUDGE BARNES: Do you offer 208, Mr. Youngwood?

MR. YOUNGWOOD: Yes, sir.

MR. TOPKIS: 208 is a document if it has any relevance, it has relevance to my case because it is a Canox document entitled "Long-Range Plan, 1968." I don't see any suggestion in it that Canox is going to do anything except stay at home in Canada.

JUDGE BARNES: I take it you will offer this if they don't.

MR. TOPKIS: I might.

MR. THURMAN: Your Honor, if complaint counsel is that foolish to offer something, then I think he should be penalized by letting it in the record. This is something with want. Mr. Topkis is saying this is part of his case.

JUDGE BARNES: I take it there is no real objection to this.

MR. TOPKIS: Only relevance. It does not prove anything.

MR. YOUNGWOOD: I think Mr. Topkis' attention might be called to 206-Z-6. I think when we talk about acquisition prospects under consideration and Gardner claims to be the second-largest domestic supplier of helium in the United States and would be a future additional source for BOC, all of these

things can relate to relevancy.

MR. TOPKIS: I don't press it. It seems to be a big document for such marginal relevancy.

MR. THURMAN: If Your Honor prefers not to put a big document into the record, we would be glad to cull out the individual pages.

JUDGE BARNES: Let's have the whole document in. I will receive Commission 208-A through Z-16 in evidence.

XXX

(The document heretofore marked for identification Commission Exhibit 208-A through 208-Z-16 was received in evidence.)

MR. TOPKIS: I have nothing to complain about, Your Honor, until -- well, this is not a complaint, but as to document 232. While I do not object to its receipt in evidence, I would request in camera treatment for it, Your Honor.

MR. YOUNGWOOD: May I know what document we are discussing?

MR. TOPKIS: The field notes, 232.

MR. YOUNGWOOD: Complaint counsel will offer documents up to 230. We withdraw 231.

JUDGE BARNES: I will receive Commission Exhibits 209 through 230, with the appropriate submumbers, and receive those documents in evidence.

XXX

(The documents heretofore marked for identification Commission Exhibits 209 through 230 were received in evidence in camera.)

JUDGE BARNES: 231 is withdrawn.

MR. YOUNGWOOD: Previously we withdrew Exhibit 212 and Exhibit 220. We are also not offering 212 and 220.

JUDGE BARNES: I will correct my earlier statement. I will receive Commission Exhibits 209 through 211 and Commission Exhibits 213 through 219 and Commission Exhibits 221 through 230 with subnumbers in evidence.

(Commission Exhibits 212 and 220 were withdrawn.)

MR. THURMAN: We normally don't object to in camera treatment, but it does make findings more difficult to write, proposed findings, and, I assume, Your Honor's initial decision. I guess I want to know why this is sensitive.

MR. TOPKIS: By all means. It has to do with personalities. Perham and Greenfield went all over the United States talking to people in the industrial gasses business. Some had flattering and some unflattering comments about each other. They are all recorded. I would not want to turn the industry into a gossip column.

JUDGE BARNES: We can receive the exhibit in camera, but in the case of Commission Exhibit 232 I take it there would be no harm in quoting in findings the statements other than the personalities.

MR. TOPKIS: Absolutely. I am sure Mr. Thurman will treat them kindly.

JUDGE BARNES: Is that understood?

MR. THURMAN: Yes, sir.

JUDGE BARNES: I will receive Commission Exhibit 232-A through Z-47 in evidence in camera.

XXX (The document heretofore marked for identification Commission Exhibit 232-A through 232-Z-47 was received in evidence in camera.)

MR. TOPKIS: Your Honor, we have no objection to 233, 234 or 235 if they are still being offered. I am told 235 is withdrawn, so we have no objection to 233 or 234.

MR. NEWCOMB: No objection.

JUDGE BARNES: I will receive Commission Exhibits 233-A through C and Commission Exhibit 234 in evidence.

X (The documents heretofore marked for identification Commission Exhibit 233-A through 233-C and Exhibit 234 were received in evidence.)

JUDGE BARNES: Do we have another series we can receive?

MR. TOPKIS: Could I have a moment? I just want to check something.

Your Honor, we have no objection to 236. Indeed, we have no objection to anything until 254, so we would consent to the receipt in evidence of all documents from 236 to 253 that are still offered.

MR. NEWCOMB: ARCO has no objection to the exhibits offered up to 253 starting with 236.

JUDGE BARNES: Are there any withdrawn in that series,

Mr. Youngwood?

MR. YOUNGWOOD: We previously withdrew and still withdraw 237, 238, 239, 240, 241 and 252.

JUDGE BARNES: Give me those numbers again.

MR. YOUNGWOOD: 237, 238, 239, 240, 241 and 252.

JUDGE BARNES: I will receive in evidence Commission Exhibits 236-A and B, and I will receive Commission Exhibits 242 through 251 with subnumbers in evidence. I will receive in evidence Commission Exhibit 253.

XX (The documents heretofore marked for identification Commission Exhibits 236-A and 236-B, 242 through 251, and 253 were received in evidence.)

JUDGE BARNES: We are considering now Commission Exhibit 254.

MR. TOPKIS: Just a second please, Your Honor, on that.

Your Honor, we don't have any objection to 254. This is a report. I can perhaps tell the Court of the report Mr. Perkins made to E. M. Roberts this morning. There is personality material in here which would be better kept quiet. I don't know if we need go to the extreme of in camera treatment. I think now that I have mentioned the matter, we will all be sensitive to it.

I have no objection to this.

Your Honor, I think I will, if I may, change my mind and ask in camera treatment of this document. I am reminded

AIRCO's competitors are getting copies of everything here.

MR. NEWCOMB: We join in the request for in camera treatment of this document. We feel some of the discussions might be valuable to someone coming to xerox the files of the Commission.

JUDGE BARNES: I will receive Commission Exhibit 254-A through S in evidence in camera. Here again, we have a document in which there is no problem in briefing the figures, merely in personality matters which is best not disclosed.

(The document heretofore marked for identification Commission Exhibit 254-A through 254-S was received in evidence in camera.)

MR. TOPKIS: I might note page 254-N seems to have been omitted. The lettering system just skips past that page.

JUDGE BARNES: Commission Exhibit 254-A through S has no page N.

MR. KRULLA: I understand there is no page missing, but the numbering is incorrect. We will correct it.

Your Honor, will the number stay the way it is?

JUDGE BARNES: Yes. There is no page N, although there is no page missing.

Commission Exhibit 255?

MR. TOPKIS: I think there, too, Your Honor, we have to request in camera treatment for the same reason.

JUDGE BARNES: I will receive Commission Exhibit 255-A

and B in evidence in camera.

XXXX (The document heretofore marked for identification Commission Exhibit 255-A and 255-B was received in evidence in camera.)

JUDGE BARNES: Here again there is no briefing problem with it. It is a personality question.

MR. YOUNGWOOD: Commission Exhibit 256 has been withdrawn.

MR. TOPKIS: Your Honor, up to 266 we have no problems.

MR. NEWCOMB: AIRCO has no problems up to 266.

JUDGE BARNES: Have any documents in there been withdrawn?

MR. YOUNGWOOD: No, sir.

JUDGE BARNES: I will receive 257 through 266 with subnumbers in evidence.

XXX (The documents heretofore marked for identification Commission Exhibits 257 through 266 were received in evidence.)

MR. TOPKIS: We have no problem with 267.

MR. NEWCOMB: No objection to 267, Your Honor.

JUDGE BARNES: I will receive Commission Exhibit 267-A and B in evidence.

MR. TOPKIS: Nor with 268.

MR. NEWCOMB: No objection to 268, Your Honor.

JUDGE BARNES: I will receive Commission Exhibit 268

in evidence.

XXXX (The documents heretofore marked for identification Commission Exhibits 267-A and 267-B and 268 were received in evidence.)

MR. TOPKIS: If Your Honor please, I am sorry. I thought I had been through all the Commission exhibits. I discover I have not. I am only up to where we have just arrived. Rather than proceed one by one and take time, it would be painstaking and I would be a little unsecure. I would like to review the balance over the weekend. I could do it right now and perhaps be prepared to comment after the next witness.

JUDGE BARNES: We can wait until next week. There is no big rush.

I assume we have no witness until 12.

MR. THURMAN: The witness is due in at 12, but I don't know what time we can get him on the stand.

MR. KRULLA: I suspect he is probably going to the Pennsylvania Building at 12 o'clock.

MR. THURMAN: I would like to go as soon as possible so these gentlemen can go on to New York.

JUDGE BARNES: We will adjourn until 12:05 p.m.

(Whereupon, at 11:20 a.m. the hearing recessed, to reconvene at 12:05 p.m. of the same day.)

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JUDGE BARNES: Call your witness.

MR. PURCELL: I apologize for the delay. The witness got in from New York as soon as he could. They had weather problems.

As complaint counsel's next witness we call Robert S. Johnson.

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ROBERT S. JOHNSON was thereupon called as a witness for the Commission and, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By Mr. Purcell:

Q Please state your name and home address.

A Robert S. Johnson; 165 East 71 Street, New York.

Q Who is your present employer?

A Loeb, Rhoades & Co.

Q What is your present position with that company?

A I am a general partner in the general investment banking business.

Q How long have you held that position?

A Since March 1968.

Q Have you held any other position with that company?

A No. I must correct that. I was a vice-president for a year and then I became a general partner.

Q Prior to your employment with Loeb, Rhoades & Co. who was

your employer?

A I was a vice-president of CIT Financial Corporation in New York.

Q What were your duties and responsibilities in that position?

A I had a dual responsibility. I was in charge of their acquisition and diversification program and I was group vice-president for the companies we purchased under that program.

Q As a general partner in Loeb, Rhoades & Co., what are your duties and responsibilities?

A They range over the normal definition of investment banking which is essentially corporate finance but I particularly specialize within the firm on mergers and acquisitions.

Q What is the business of Loeb, Rhoades & Co.?

A It is a dual business. It is brokerage in the usual sense and investment banking -- the normal definition which would be public offerings, private placements, financial consultations, major merger and acquisition work and the other normal facets of an investment banking activity.

Q Are you acquainted with any present or past employees of the British Oxygen Company?

A I have been in the past.

Q During the period 1969-1970 were you acquainted with Mr. Leslie Smith?

A On one occasion, yes.

Q What occasion was that?

A At luncheon at the British Oxygen's headquarters in London in the latter part of 1969.

Q What was Mr. Smith's position at this time?

A I believe he was managing director.

Q Are you acquainted with Mr. J.S. Hutchinson?

A He was also at the luncheon and this is the only occasion in which I have seen him or spoken to him.

Q That was 1969?

A Yes. May I just refresh my notes?

Yes, apparently November, 1969.

Q Are you acquainted with Dr. Nicol Gross?

A That is a new name to me. I may have met him. There was a group at that luncheon. I am advised if you want me to go on beyond the precise question that Mr. Laister whom I just met here was at the luncheon and a Dr. Gross was at the luncheon but I don't recall other than Mr. Hutchinson and Mr. Smith.

I do know there was a larger group but I don't recall the other names.

Q Do you know what Mr. Hutchinson's position was at that time?

A I believe he was chairman.

Q Are you acquainted with Mr. John Williams?

A Yes. I do not recall whether he was at the luncheon, but he was involved in a meeting with me in Chicago January 8, 1970.

Q Was Mr. Williams an employee of British Oxygen Company?

A Yes.

Q In 1969 and 1970.

A Yes, in 1970.

Q Are you acquainted with any past or present employees of Chemetron Corporation?

A Yes.

Q Are you acquainted with Mr. John Gallagher?

A Yes.

Q Were you acquainted with him in 1969 and 1970?

A Yes.

Q Approximately how long have you known Mr. Gallagher?

A I had earlier known Mr. Gallagher as a personal friend and in a business association. Some years ago, we were the management consulting firm of Booz, Allen & Hamilton. It had been a particularly continuing relationship but we became reacquainted in his Chemetron capacity.

Q What was Mr. Gallagher's position with Chetron in 1969?

A At the time, he was president and chief operating officer.

Q In 1970?

A I believe both years. I don't recall exactly when he assumed that position.

Q Are you acquainted with Mr. Hanes?

A Yes, Mr. Charles Hanes was chairman and chief executive officer.

Q During 1969 and 1970?

A And earlier. I had known Mr. Hanes earlier in his Chemetron

connection.

Q I believe you previously testified there was a meeting in London during November, 1969?

A That is right.

Q Did you attend that meeting?

A Yes.

Q Who else was present besides yourself?

A Mr. Michael Allen, who at that time was on a retainer arrangement with Loeb, Rhoades working in London on mergers and acquisitions activity who arranged the meeting as far as my being there was concerned.

Then as I have told you, Mr. Hutchinson, Mr. Smith and I am told at least two others, I think, that I mentioned.

Q Were you present during the entire meeting?

A I believe so, yes. Yes, there was a luncheon meeting.

Q Was the Chemetron corporation discussed at that meeting?

A Yes.

MR. POPKIS: Objection. Isn't this way to do this is to ask what happened at the meeting?

MR. PURCELL: I believe if I got into that, I would be referring to specific questions.

JUDGE BARNES: I believe the question is appropriate. I will let counsel proceed in his own way.

By Mr. Purcell:

Q Was the Chemetron Corporation discussed at that meeting?

A Yes.

Q Could you explain?

A Yes. Mr. Allen as part of his responsibilities with Loeb Rhoades has from time to time arranged meetings for me with major British corporations, usually on the occasion of my visiting London for one reason or another.

I should add, ours is an international busienss which is true of most large investment banking firms.

MR. TOPKIS: I am sorry. I am having trouble hearing you.

THE WITNESS: Mr. Allen, in the course of his relationship with Loeb Rhoades on a number of occasions arranged meetings for me with major British companies whom he thought were interested in making acquisitions in the United States.

Since this was part of my business with Loeb Rhoades, the purpose of the meetings, of course, usually was in fact what did these companies want to do in the way of investment in the United States and could we be of help to them.

The British Oxygen Luncheon was arranged for me by Mr. Allen in that context.

By Mr. Purcell:

Q Did you participate in that discussion?

A Yes.

Q What did you indicate to the people present at that meeting?

A The meeting took the usual course, which was, A, getting acquainted and B, at some point my asking them what were their interests in the United States. Then they would outline their interests and then I would make whatever comments I felt might be helpful or perhaps say to them that we would think about it and come back later and see if we could be helpful.

In this instance, to the best of my recollection, British Oxygen indicated to me, and I do not recall whether it was Mr. Smith or Mr. Hutchinson, out of the meeting, I was told that they were interested in making an acquisition of some consequence in the United States in their principal line of business.

I told them that I had had earlier relations with Chemetron; that in fact I had been involved in earlier negotiations for the acquisition of Chemetron by another company. I did not know whether currently they might be interested in such discussions but I would be glad to go back to the States and talk with Gallagher and Manes about meeting with the BOC people if they were interested in pursuing that as an acquisition possibility.

This I should add is the normal course of such a discussion.

They did indicate interest. I cannot recall how strongly the interest was expressed at the luncheon, but they did indicate a positive interest in the possibility of acquiring Chemetron. We did not get it to any great detail. Again,

I said I would find out more about the current state of affairs and their thinking at Chemetron and get back to them.

I talked with either Gallagher or Hanes by phone sometime after getting back -- I can't remember which. They indicated that they would be willing to sit down and discuss the possibility with BOC people.

I communicated this either directly to BOC or through Mr. Allen -- I can't remember which -- and was told that Mr. Williams would be in the States in January and would it be possible to arrange a meeting with Chemetron. The net result was a luncheon meeting at about 12:00 or 12:15 at the Chicago Club in Chicago.

MR. TOPKIS: Could we have the date?

THE WITNESS: According to my calendar and I believe you have a copy of my calendar, January 8, 1970 -- at which I was present, Mr. Williams was present, Mr. Hanes and Mr. Gallagher. I believe that is all. I can't be certain of that, but I believe that is all.

JUDGE BARNES: You said out of the meeting or at the meeting when you started.

THE WITNESS: At the meeting. When I say out of the meeting, I can't recall just who, but at the meeting.

JUDGE BARNES: You also said in their principal line of business. Could you clarify that for us.

THE WITNESS: Liquid Gas.

JUDGE BARNES: Industrial gas?

THE WITNESS: I should say industrial gases. I should say I am not an expert in the business in industrial gases.

By Mr. Purcell:

Q Approximately how long did the meeting in Chicago on January 8, 1970 last?

A About three hours. We had a private room for a lunch and we simply said in that room at least an hour after the luncheon was concluded. Mr. Williams and I left together and went to the airport together in a taxi and I would guess it was about 3:15.

Q What happened at the meeting?

A Mr. Williams indicated a positive interest in talking with Chemetron about acquisition of their shares if Chemetron would like to pursue such a conversation. Mr. Hanes and Mr. Gallagher asked a number of questions about BOC, indicated the highest respect for BOC as an organization, as a company, and I should add that all the way through the meeting seemed to be on the highest plane.

A lot of questions were asked, Mr. Williams answered those questions and then asked some about the Chemetron operation, such as to what extent were they in businesses other than industrial gases and thatkind of thing because it is something of a conglomerate although it is primarily engaged in industrial gases. You know the company.

Finally, Mr. Williams did ask Mr. Hanes if Chemetron would be interested in going further into discussions directed toward the acquisition of Chemetron by BOC.

To the best of my recollection, Mr. Hanes told Mr. Williams that if Chemetron were going to be bought out by anybody else, he would prefer that it not be an overseas company, that with all respect for BOC and their management and its place in the industry that he did not think that control of the company should pass into foreign hands.

I don't know whether that is the precise expression he used. There was nothing pejorative in his language. Again, it was all very pleasant and friendly but that was the message. Mr. Hanes concluded his remarks by asking if BOC would be interested in a minority position in Chemetron. He did not say it would be available to them but the implication was clear to me that if BOC wanted to pursue conversations which would put a minority interest of Chemetron in the U.K. and BOC that Mr. Hanes was not adverse to continuing those discussions.

Mr. Williams said he did not think so, that BOC probably would be interested in a control position in any acquisition that was made in the States, but that he would go back to England and discuss the question with his main board, which is the British term for parent company board and see that Mr. Hanes got an answer.

The meeting really broke up on that note.

I left the meeting the distinct feeling that that ended it, that Mr. Hanes would have been willing to discuss BOC taking a minority position; that Mr. Williams was pretty definitely not interested, knowing the attitude of his own board.

About a week to two weeks later I did get word, and I can't remember if it was directly through Mr. Milliams or Mr. Allen that BOC would not be interested in pursuing the discussions further and so notified either Mr. Gallagher or Mr. Hanes. There were no more meetings and I have not since been in touch with or even seen any BOC people until I met Mr. Laister again today.

By Mr. Purcell:

Q Mr. Johnson, I would like to direct your attention back to the November, 1969 meeting in London.

You previously testified that you did participate in that discussion?

A I believe it was arranged for my visit.

Q Did you indicate to the people present at that meeting that any other industrial gases company might be available for acquisition?

A Either in that meeting or if the few phone conversations, the one or two phone conversations I had with Mr. Williams, I believe I mentioned Airco as a possibility.

Do you want me to elaborate on that?

Q Please.

A In the New York investment banking community, there were a number of people who thought for various reasons that Airco ---

MR. WOLLEN: Is the witness answering questions or speculating. I think the question has been answered.

JUDGE BARNES: Just answer as directly as you can.

THE WITNESS: I had had indications that ---

MR. WOLLEN: Is there a question pending, Your Honor.

JUDGE BARNES: The question is did he tell him about Airco. Explain what was said about Airco.

THE WITNESS: All that I can recall that was said about Airco at that meeting, to confine myself specifically to the question that I understood there was some possibility that Airco might also be available. I did not profess any particular knowledge of the Airco situation.

I should add that at some point during that period, I did have lunch with a Mr. Humberstone, who I believe was an executive vice-president of Airco at the instance of a mutual friend in which the possible availability of Airco for acquisition was indicated by Mr. Humberstone.

I cannot tell you whether that luncheon meeting took place before or subsequent to my visit to London or whether my mention of Airco stemmed directly from my Humberstone meeting.

Q When you indicated the people present at the November 1969 meeting in London that Airco might be available, what was the response?

A I don't recall.

I am sorry. I do. Someone said it was terribly big for BOC, and that is all that was said. There was no further discussion.

Q Was there any indication that British Oxygen might be interested in a smaller company?

MR. TOPKIS: Objection, Your Honor. I take it we have had the whole text of this conversation to the degree the witness can remember. He is now leading the witness and I think it is unfair.

JUDGE BARNES: Ask him if any other companies were mentioned.

By Mr. Purcell:

Q Were any other industrial gas companies in the United States referred to at that November meeting?

A To the best of my recollection, no other companies at all were referred to in that meeting.

Q Was there any indication as to what size industrial gas company they would be interested in?

A My impression was Chemetron was about the right size and Airco was too big.

Q Mr. Johnson, do you know why the British Oxygen Company expressed an interest in an acquisition in the United States?

MR. TOPKIS: Objection, Your Honor.

By Mr. Purcell:

Q It just calls for a yes or no answer.

A No.

Q Mr. Johnson, based on the two meetings, the November 1969 meeting and the January 1970 meeting, do you have an opinion why British Oxygen Company might want an acquisition in the United States?

JUDGE BARNES: I think that is far enough. This witness has perhaps exhausted his relevance to this proceeding.

Are you asking him as an expert in the industrial gas business? He said he was not such an expert.

MR. PURCELL: No, sir, just based on those two meetings and what was discussed. It is my understanding he participated.

JUDGE BARNES: He has told us what was said and I think the rest is left for me to draw conclusions.

MR. TOPKIS: First, may I have any Jencks material or Section 35 material?

MR. PURCELL: I have some notes.

MR. THURMAN: These are my notes.

MR. TOPKIS: Your Honor, I have a copy of the document Your Honor has.

JUDGE BARNES: The notes I have seen are not substantially verbatim material and not Jencks Act material.

MR. TOPKIS: There was reference to a calendar. Is

there another copy I could have.

MR. PURCELL: We have copies.

MR. THURMAN: I guess you want to see everything we got from this witness.

JUDGE BARNES: Yes, let me see it.

THE WITNESS: Your Honor, I have extra copies here of all three of those sheets, if you would like that

JUDGE BARNES: I am turning over two sheets. One is addressed to you and the other two are signed by you and they may be turned over.

CROSS-EXAMINATION

By Mr. Topkis:

Q Mr. Johnson, you wrote a letter on January 29, 1974 to whom it may concern about the events which you have just been discussing in your testimony.

A Yes.

Q How did it come about that you wrote that letter, sir?

A I was asked by, I believe, Mr. Purcell, in a visit to my office to write that.

Q You believe it was whom?

A I believe it was Mr. Purcell. I have had visits from various staff members of the FTC and I can't be certain as to who requested the letter.

MR. PURCELL: To clarify the letter on this point ---

JUDGE BARNES: It was written at the request of an

FTC representative.

THE WITNESS: Yes.

By Mr. Topkis:

Q Were you asked to sign an affidavit?

A I don't recall.

Q Weren't you asked to sign an affidavit?

A I don't recall.

Mr. PURCELL: I believe the witness answered the question and Mr. Topkis is arguing.

JUDGE BARNES: He has reframed his question now.

By Mr. Topkis:

Q Are you sure?

A I only say I do not recall. I recall writing the letter, yes.

Q Did your secretary type the letter?

A Yes.

Q Did you discuss the letter it came to be written?

JUDGE BARNES: With whom?

MR. TOPKIS: With anyone.

THE WITNESS: No.

By Mr. Topkis:

Q Did you just sit with your secretary and dictate this letter?

A Yes.

Q You didn't do a draft of it and then discuss it?

A I do a draft of everything that I dictate, but it was not discussed with anybody.

Q After you got the draft from your secretary ---

A Nobody ever reveiwed that draft other than me.

Q Subsequently you found out that in that letter there were a number of very marked mistakes; isn't that right?

A I did.

Q You referred in that letter having met with the BOC people in London in February of 1969.

A That is right.

Q You were off by ten months. You met with them in November of 1969; is that right?

A Right.

Q You said you met in Chicago in July of 1969 and actually you met in January of 1970; is that right?

A Right.

Q You said also that in Chicago you met with Mr. Leslie Smith of BOC and you were wrong about that also?

A I was wrong about that also.

Q Actually you added a few Chemetron people in your letter of January 29, 1974, didn't you?

A I now say as I just said, I do not recall if any others were present. I don't think so.

Q When you wrote this letter on January 29, you thought four others were present?

A That is right.

Q You sent a cable or a telex to Mr. Michael Allen in London in March of 1974.

A That is right, because of the confusion.

Q And you said to him in that wire, "Please telex reply but do not contact BOC"; is that correct?

A Right.

Q Why were you afraid of his contacting BOC?

A I was not afraid. I thought there was no readon for anyone else to get involved in my calendar. I knew Mr. Allen knew it precisely.

Q You have not mentioned here, Mr. Johnson, how you first came to talk with Mr. Allen about BOC. Was that your own idea?

A No.

Q Whose?

A I believe I did say Mr. Allen routinely has introduced me to any number of major British companies whom he knew or had reason to believe were seeking acquisitions in the United States, and BOC was introduced to me in that manner and in that context.

Q So it was Mr. Allen who introduced you to BOC?

A Yes, and I believe I earlier testified to that.

Q No one else had anything to do with bringing that meeting about?

A No.

Q When you were asked who was at the luncheon in November of 1969 by Mr. Purcell, you said, "I will refresh my recollection by looking at something."

What do you look at, sir?

A I knew that ---

Q I am just asking you the simple question what did you look at?

JUDGE BARNES: You may answer the question.

THE WITNESS: The telex that you have. I was looking for the date. All I looked at what I had here was this paper looking for the date, but in that telex Mr. Allen also refreshed my memory on who was at the luncheon.

MR. TOPKIS: May I ask Your Honor for production of whatever it is the witness referred to?

JUDGE BARNES: May I see the paper? This is Mr Mr. Johnson's subpoena.

THE WITNESS: That is what I just gave Your Honor.

JUDGE BARNES: The only thing he has are these documents, two of which I turned over to you.

By Mr. Topkis:

Q From what did you refresh your recollection as to who attended the luncheon meeting in November of 1969?

A Precisely I refreshed my memory from this exchange of telexes, but I believe I testified ---

Q What exchange of telex? I have only one telex.

JUDGE BARNES: Mr. Johnson has a reply from Mr. Allen which I did not give you as a Jencks statement, but since the witness used it in his testimony I will make that available to you.

MR. TOPKIS: Thank you, Your Honor.

By Mr. Topkis:

Q Would it be accurate to say, Mr. Johnson, so far as your own personal recollection is concerned, it is rather hazy, but that Mr. Allen's records give you confidence as to who attended that meeting?

A I don't think that is a fair statement. There is nothing at all hazy about my recollection of the fact that I was at the luncheon, that Mr. Hutchinson and Mr. Smith was there but I did not know who else was there until Mr. Allen refreshed my memory, but I did know it was a larger group than Mr. Hutchinson and Mr. Smith.

Q So you were absolutely sure that Mr. Smith had been at that meeting in November of 1969 in London; is that right?

A That is right.

Q You never had any doubt about that.

A All the way through this I had a tendency to confuse Mr. Williams and Mr. Smith. I would like somebody to ask me the reason for my confusion as to dates in the Chemetron situation.

Q I come to you as a friend and say what is your reason.

A The reason is that over that period of about a year, I had

Mr. Gallagher and/or Mr. Hanes -- I think it was Mr. Gallagher -- in three different meetings of this nature, possible acquirers of Chemetron. The one meeting was with BOC. Another one was with Ultra Corporation and a third one was with AMF, all in Chicago.

Also, over that period I made a number of trips to London, two or three trips to London and normally when I am out of town I don't particularly put in my diary my specific appointments in a city. It would just say London.

I was picking out of my calendar Chicago meetings with Chemetron and general London trips and I came to the wrong surmise originally which is why I needed Mr. Allen's help on the BOC matter specifically.

Q Do you happen to remember whether Mr. Smith and Mr. Williams are separated by more or less than 60 pounds in weight?

A No.

Q Mr. Williams was not at the meeting in London; isn't that right?

MR. PURCELL Your Honor, excuse me.

THE WITNESS: I did not say that. I said that Mr. Hutchinson and I believe Mr. Smith, were at that meeting and I cannot or could not remember without Mr. Allen's help either, A, whether certainly it was Mr. Smith rather than Mr. Williams and B, who else might have been in the meeting. All I knew there were others present.

Q There was a man with whom you had lunch at the Chicago Club in January of 1970 with whom you thereafter drove out to the airport.

A Exactly and I believe that was Mr. Williams because the freshing of my memory which had been done. I thought it was originally Mr. Smith.

Q Who refreshed your recollection. Who told you about the Chicago Club meeting?

A My calendar.

MR. PURCELL: Your Honor ---

JUDGE BARNES: Do you have an objection? Don't interject advice.

MR. PURCELL: I believe Mr. Johnson testified he referred to three documents that refresh his recollection. One of the documents was his diary entry which specifically refers, and I would like the record to specifically note ---

JUDGE BARNES: Mr. Johnson can testify what refreshed his recollection.

THE WITNESS: It was from my diary. When I finally straightened out what date in Chicago related to the BOC meeting, there it was in my diary.

By Mr. Topkis:

Q The problem was when you prepared your original letter for the FTC you did not consult your diary?

A I did not consult it carefully enough. I found a meeting

in London and one in Chicago and put them together erroneously.

Q Who called the errors to your attention first?

A Mr. Purcell or one of his associates.

Q He called you?

A They visited me in New York.

Q You had another try at getting things straightened out?

A When he indicated my memory was erroneous or faulty, then I telexed Allen for help from his diary.

Q But you wanted to get matters straightened out?

A Exactly.

Q But the one thing you did not want BOC was to know about this.

A I think that is put in the wrong context, sir.

Q Mr. Johnson, I am showing you a copy of Commission Exhibit Exhibit 224 in evidence and I ask you, sir, whether it bears your signature and did you write it?

MR. THURMAN: May we see it?

MR. TOPKIS: Certainly.

THE WITNESS: Yes.

By Mr. Topkis:

Q You wrote that, sir?

A Yes.

Q Mr. Johnson, in this hearing room a couple of days ago, a Dr. A. Muller was on the witness stand. Do you know Dr. Muller?

A No.

Q Never heard his name before?

A No.

Q Dr. Muller claims ---

MR. PURCELL: Objection.

JUDGE BARNES: Let him finish his question.

By Mr. Topkis:

Q Dr. Muller testified he had a telephone conversation with you in 1969?

A I do believe ---

MR. PURCELL: Objection. It is beyond the scope of the direct examination.

JUDGE BARNES: Are you going to tie it in with the meeting of BOC and Chemetron?

MR. TOPKIS: Certainly, how that meeting came about.

JUDGE BARNES: You may proceed.

THE WITNESS: There was a chemist or chemical consultant, I believe, and either his office or residence was in New Jersey.

By Mr. Topkis:

Q Yes, that is where Dr. Muller lives.

A He became involved in some matter on a retainer with BOC. I have to say until this moment his involvement never occurred to me and I have just told you now all I can recall.

Q Isn't it a fact, Dr. Johnson, it was Dr. Muller who first

raised with you the question of a possible mutuality of interest between BOC and Chemetron?

A No.

Q It is not?

A I believe he came into the matters subsequently. To my recollection, he did not first raise it but came into the matter after the discussion in London but I cannot be certain of that, but he did not initially raise the idea.

Q Did he come down to your office in Wall Street?

A My office moved from 42 Wall Street to 375 Park Avenue -- well, I guess it was subsequent.

Q Is my letter Wall Street or Park Avenue? Wall Street.

A I guess it was June 1970 when I moved uptown. I am sorry for that aside.

I just don't recall meeting him. I certainly can't say I did not meet him.

Q Was he on first name terms with you?

A Sometimes as we all know even in a first phone conversation some people will use a first name and others won't. I simply can't recall. In the normal sense of the word, no.

Q But you are sure it was you rather than he who had the first idea of bringing BOC and Chemetron together?

A I can only say to the best of my recollection. I don't recall that he had an important involvement in the matter.

Q It was you who arranged the luncheon in London?

A No, it was Mr. Allen who arranged the luncheon.

Q I apologize. You made that perfectly clear. It was Mr. Allen who arranged that?

A Yes, it was Mr. Allen who arranged that luncheon.

Q And surely not Dr. Albert Muller.

A No, definitely not. Mr. Allen took me to the luncheon and attended.

MR. TOPKIS: Thank you very much.

By Mr. Wollen:

Q You testified about having lunch with a Mr. Humberstone of Airco.

A Yes, and I have searched my diary on that one and certainly there are ways I could find out if it became crucial to this hearing but I simply can't find exactly when it was.

Q At that time, did you know Mr. Humberstone's responsibilities within Airco?

A I believe he had the title of executive vice-president. I do not know what his precise responsibility was.

MR. PURCELL: We have no further questions, Your Honor.

JUDGE BARNES: Thank you, Mr. Johnson.

(Witness excused.)

JUDGE BARNES: At this time, we will adjourn until 10 o'clock Monday morning.

(Whereupon at 1:40 p.m. the hearing recessed to reconvene at 10 a.m., Monday, May 13, 1974.)

C O N T E N T S

WITNESSES

FOR THE COMMISSION:	DIRECT	CROSS	REDIRECT	RECROSS
Solomon P. Kimerling	853	878	891	
Thomas E. Cunningham	916	929	947 956	955

E X H I B I T S

none

x x x

BEFORE THE

FEDERAL TRADE COMMISSION

IN THE MATTER	
of	Docket No. 8955
BRITISH OXYGEN COMPANY, LTD., BOC FINANCIAL CORPORATION, BOC HOLDINGS, LTD., BRITISH OXYGEN INVESTMENTS, LTD., AIRCO, INC.	

Room 7314, 1101 Building,
414 Eleventh Street, N. W.,
Washington, D. C.,
Monday, May 13, 1974.

Met, pursuant to recess, at 10:00 a.m.

BEFORE:

ERNEST G. BARNES, Presiding Administrative Law Judge.

APPEARANCES:

K KEITH THURMAN, GORDON YOUNGWOOD, DON PURCELL, DARYL NICKEL, RHETT KRULLA and JOHN HOAGLAND, on behalf of the Federal Trade Commission.

JAY H. TOPKIS, LEWIS A. KAPLAN and MOSES SILVERMAN, Paul, Weiss, Rifkind, Wharton and Garrison, 345 Park Avenue, New York, New York 10022, on behalf of Respondent, British Oxygen Company, Ltd.

GEORGE J. WADE, R. BRUCE MacWHORTER and DANFORTH NEWCOMB, Shearman and Sterling, 53 Wall Street, New York, New York 10005, on behalf of Respondent, AIRCO, Inc.

E. HOUSTON HARTA, Prudential Plaza, Chicago, Illinois, on behalf of Chromatron Corporation.

PROCEEDINGS

JUDGE BARNES: On the record.

MR. NICKEL: Complaint Counsel calls Solomon P. Kimerling to the stand.

- - -

SOLOMON P. KIMERLING was thereupon called as a witness for the Commission and, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By Mr. Nickel:

Q Mr. Kimerling, for the record will you please state your full name and home address?

A Solomon P. Kimerling.

Business or home?

Q Home address.

A 3620 Locksley Drive, Birmingham, Alabama.

Q Are you employed?

A Yes, by the Alabama Oxygen Company.

Q What is the address of the Alabama Oxygen Company?

A 2610 18th Avenue North, Bessemer, Alabama, 35026.

Q In what capacity are you employed by Alabama Oxygen Company?

A I am President of the company.

Q How long have you held that position?

A About four or five years.

Q What are your duties and responsibilities as President of Alabama Oxygen Company.

A Everything. You just run the company; that is all.

Q Have you held any other positions with Alabama Oxygen?

A Yes, I was Secretary and Vice President; then President.

Q How long have you been with Alabama Oxygen Company altogether?

A Since 1956; the summer of '56.

Q How long has Alabama Oxygen Company been in existence?

A Alabama Oxygen Company has been in existence since either '50 or '51 as a company and been incorporated since 195?.

Q What is the business of Alabama Oxygen Company?

A We manufacture and distribute industrial and medical gases and distribute welding supplies and equipment; things associated with that industry.

Q How long has Alabama Oxygen Company been in the industrial gas business?

A Since it first started up; back in '50 or '51.

Q How do you define industrial gases?

A Well, oxygen, nitrogen, argon, acetylene, hydrogen, helium, CO_2; various combinations of those gases; nitrous oxide is, of course, medical but it is also of that group, you know; cyclopropane, although it is not much today.

Q Do you consider carbon monoxide industrial gas?

A We don't because we don't handle it, but it could be.

Q Which industrial gases does Alabama Oxygen Company produce?

A Oxygen, nitrogen, acetylene, hydrogen.

Q Which industrial gases does Alabama Oxygen Company market?

A We market those plus the others, argon, helium, CO_2; some mapp, and nitrous and other gases, you know, associated with the industry.

Q Is there a reason that Alabama Oxygen Company distributes the particular group of gases that you have mentioned?

A Because that is the way the industry is basically set up. You know, we are the last ones in so we did what everybody else did.

Q What was the net value of industrial gas shipments in the United States of Alabama Oxygen Company in calendar year 1972?

A Can I look at a note?

Q Certainly.

A The total value of those shipments?

Q Yes.

A $2,585,512.

Q Does that figure include mapp?

A Yes; it does.

Q What amount of that figure is represented by shipments of Mapp?

A $111,908.

Q For calendar year 1972, what was the net value of shipment

f.o.b. plant in the United States of the industrial gases produced and marketed by Alabama Oxygen Company?

A I would say approximately $1,722,000.

Q What types of industrial gas production facilities are operated by Alabama Oxygen Company?

A We have what is called a gas plant which produces oxygen and nitrogen gas only.

We have a liquid plant which produces liquid only.

Q Liquid what?

A Liquid oxygen and nitrogen.

We have a hydrogen plant which produces hydrogen and oxygen.

We have two acetylene plants which produce acetylene only.

Q Where are these facilities located?

A The hydrogen plant is located in Birmingham.

The gaseous oxygen nitrogen plant, the liquid oxygen and nitrogen plant and the acetylene manufacturing plant are located in Bessemer, Alabama, which is a suburb of Birmingham.

We have one small acetylene plant located in Dothan, Alabama.

Q What is the general georgraphic area in which Alabama Oxygen distributes industrial gases?

A Most of the State of Alabama, with the exception of maybe the Mobile area and the Tri-State area and parts of the western Alabama, Tuscaloosa west area, parts of Mississippi, around

Tupelo and Greenwood, parts of Tennessee and parts of Georgia and Florida out of our Dothan operation.

Q Which industrial gases are produced by air separation?

A Oxygen-nitrogen-argon, basically.

Q What percentage of Alabama Oxygen net value of industrial gas shipments in 1972 was accounted for by oxygen, nitrogen and argon?

A About 71 per cent; something in that area.

Q What other companies that produce and distribute industrial gases does Alabama Oxygen Company compete with?

A Who don't we compete with?

We compete with Linde, AIRCO, Air Products and Chemical, Chemetron, Selox, Liquid Air. Those are the basic producers that we compete with.

Q Does Alabama Oxygen Company compete with any companies that produce only acetylene but market other gases?

A Probably Nunn Gases in Montgomery. They produce acetylene and they buy all their other gases from other people.

Q Is Nunn the only company of that type that Alabama Oxygen Company competes with?

A Yes; that is in our real marketing area.

Q Are you familiar with the acetylene operations of Nunn Company?

A Somewhat;yes, sir.

Q What is the basis of your familiarity?

A They are in Montgomery and we go to Montgomery a lot. I have been to their plant.

Q Do you know the capacity of their plant?

A I think they have what you call a 1200 twin, sight feeder Reshart 1200 twin generator. I think that is the size of it.

Q What share of industrial gas shipment in your area in calendar year 1972 would you estimate were accounted for by shipments of acetylene from the Nunn Company?

A Very small.

Q Does Alabama Oxygen Company belong to any trade associations?

A Yes, sir.

Q Trade association in connection with their industrial gas business?

A Yes.

Q Would you name those associations, please?

A We belonee to the International Oxygen Manufacturers Association, the Compressed Gas Association, and the National Welding Supply Association.

Q What are the qualifications for membership in the International Oxygen Manufacturers Association?

MR. TOPKIS: If Your Honor please, we have been over this over and over again. I don't think we need this again.

MR. HICKEL: I will withdraw the question.

By Mr. Nickel:

Q Have you ever been an officer of either the International Oxygen Manufacturers Association or the Compressed Gas Association?

A Yes, sir.

Q Which positions did you hold, sir?

A I was Secretary-Treasurer and Vice President of the International Oxygen Manufacturers Association when it was the Independent Oxygen Manufacturers Association, and then I was President of that Association and Chairman of the Board when it changed from Independent Oxygen to International Oxygen.

Q What years was that?

A I think the change was about '67. Their bylaws would tell you exactly. It is right in that area.

Q Why was the name changed from the Independent Oxygen -- excuse me.

A I am a member of the Board of the Compressed Gas Association, if that is considered an officer.

Q Why was the name changed from the Independent Oxygen Manufacturers Association to the International Oxygen Manufacturers Association?

A I think basically to save the organization, to reflect the changing name of the membership, the disappearance of the independents, and the emergence of the bigger companies.

Q Why did Alabama Oxygen Company join the Independent

Oxygen Manufacturers Association?

A It is a question of mutual survival back in the early '60's when we joined.

Q Mutual survival of the independent companies?

A We exchanged information, got together. We found out things that you couldn't find out any other way.

Q You used the term "independent".

How do you define an independent industrial gas company?

A I would define it as someone, first of all, who works in a limited area, geographic area, whose management is basically tightly controlled and whose resources are relatively limited in terms of national or more than one regional marketing area.

Q How would you define a major industrial gas company?

A One who markets in a number of regions, not necessarily all across the board nationally but one who has the resources to do just about the hell he wanted to do. I mean "Big Three" does not operate in the northwest but they can do what they want to do. They are a major.

Q Prior to the name of the Independent Oxygen Manufacturers Association being changed to the International Oxygen Manufacturers Association, was there any major industrial company that belonged to that organization?

MR. TOPKIS: Objection, Your Honor.

What does this have to do with this case?

JUDGE BARNES: This is slightly off the point.

MR. NICKEL: I will withdraw the question.

By Mr. Nickel:

Q How many independent gas companies are in existence today, Mr. Kimerling?

A Do you want me to name them or count them on my fingers?

Q Both.

A There is Alabama Oxygen Company, Selox, National Welders, Burdett of Norristown, Burdett of Cleveland, Northern Gases, Pacific Oxygen, on the west coast. I think Whitmore is still out in Utah. Southern Cryogenics, and I am not sure whether Kansas Oxygen still makes gas or not in Hutchison.

There may be one or two others that I am not familiar with.

Q You indicated that the name of IOMA was changed to reflect the number of independents that have gone out of existence.

MR. TOPKIS: I object, Your Honor.

That is not an accurate summary of the testimony.

I have no objection to ~~the~~ a question.

JUDGE BARNES: Frame a question.

By Mr. Nickel:

Q Mr. Kimerling, will you name the independents who have gone out of existence in the last 10 years?

A I will name the ones that I can remember.

Southern Oxygen in the east, Kennan Welding in Alabama, Georgia; Delta Oxygen in Memphis, Balbach Company in Omaha; Industrial Air Products in the northwest.

There were some smaller companies like Stuart Oxygen on the west coast, and then there was a company in Reno, Nevada. I am trying tothink of the guy's name. Ken, I think, was his name.

Dye Oxygen Company in Phoenix; Gulf Oxygen Company in Louisiana; Texas Oxygen Company in Houston; Western Oxygen in Texas; a couple more in that area; I don't recall the names.

I don't know if you want to call Marks Oxygen Company. They became the genesis for American Cryogenics which became Liquid Air.

I think there were a few other companies.

Q Mr. Kimerling, which of any of the companies you mentioned were in existence in 1972?

A In 1972?

Q Yes.

MR. TOPKIS: Isn't that another way of asking which one of them went out of business in '73?

MR. NICKEL: No.

MR. TOPKIS: Then I am lost. I don't understand the question.

JUDGE BARNES: It is a little vague.

MR. NICKEL: Your Honor, we are interested in establishing which companies were in this business in 1972. I want to make the record clear which of these companies were in existence in 1972 or had already gone out of business.

THE WITNESS: I think Dye was still in business, Dye Oxygen.

I am not sure whether Texas Oxygen was still in business or not.

Gulf Oxygen was still in business in 1972.

I think that is about it, of that group.

By Mr. Nickel:

Q Mr. Kimerling, what happened to these companies?

MR. TOPKIS: Objection, Your Honor.

How could this witness possibly know?

MR. NICKEL: Your Honor, I can ask a leading question.

JUDGE BARNES: You can ask the date the companies merged.

By Mr. Nickel:

Q Mr. Kimerling, which of the companies you mentioned went out of existence by acquisition by other companies?

A I think they all went out through some form of acquisition or merger, you know; sale.

Q Mr. Kimerling, you have named the companies operating in the U. S. --

A I think I missed Southern Cryogenics in Smackover, Arkansas, as a company still in business.

Q You mentioned a company that you considered to be the independent industrial gas companies that are presently in

operation.

Now, would you name the companies that you consider to be the major industrial gas companies?

A Linde, AIRCO, Air Products, Liquid Air, Big Three, Chemetron, Liquid Carbonic.

Q Mr. Kimerling, are you familiar with the overall U. S. industrial gas market?

MR.TOPKIS: I don't know that there is an overall U. S. industrial gas market, Your Honor. That is something we have not had much proof on.

By Mr. Nickel:

Q Are you familiar with the overall U. S. gas industry?

A Probably.

Q What is the basis for your familiarity?

A Having been President and active inthe Independent Oxygen Association, being on the Board of the Compressed Gas Association, and just trying to stay in business.

Q Mr. Kimerling, approximately what share of the industrial gas shipments in the U. S. in 1972 would you estimate were accounted for by the industrial gas companies that you have named, the majors and independents?

MR. TOPKIS: Objection, Your Honor.

There is a better way to get that evidence than from this witness.

JUDGE BARNES: It would be an approximation, would it

not, Mr. Nickel?

MR. NICKEL: It is important that Complaint Counsel establish a universe figure. Even though we are going to offer sales information from the firms that we consider to be the principal firms, we still do not have sales information from all the smallest backyard assembly producers as Mr. Topkis said.

Somehow we have to get a figure as to what amount of sales those small companies represent. This is the type of testimony that the Commission said was a reliable indication for section 7 purposes in the Papercraft case.

MR. TOPKIS: Your Honor, I don't know that we can abolish the best evidence rule by fiat. I don't have the Papercraft case in my recollection but I before have had cases cited to me that did not really support the propositions for which they were cited.

MR. NICKEL: Your Honor, Mr. Topkis has throughout this trial miscited the best evidence rule. The best evidence rule applies when you are trying to offer proof as tothe terms of a document. The best evidence of the terms of a document is the document, itself.

Now, we are not talking about a document in this content. The best evidence rule does not apply.

MR. TOPKIS: Exactly, Your Honor.

The ledgers of these companies are the best evidence.

The books and records of these companies are the best evidence of their sales.

MR. NICKEL: If that is the case, then in order for us to establish a universe figure we are going to have to call witnesses from every single acetylene producer in the United States.

JUDGE BARNES: How many of them are there?

MR. THURMAN: Your Honor, may I argue on this because this is a very important part of our case.

We are going to do census and I will show you later, as I indicated Friday, that census is admissible through judicial notice. In fact, I might as well give it to you at this time, a decision on that.

The Commission held through Papercraft these small insigificant producers would be too much of a burden to be called and therefore this is reliable to get it from people in the industry whom they felt were the major producers and their estimate of the total universe and Papercraft, their estimates varied but ended up that the people that they named, these executives, and the Commission held, that these executives were in a position to know what their competitors were doing and approximately what they would account for and it held that these people accounted for 80 percent and 80 per cent for section 7 purposes was adequate.

This was backed up by census but with the two, the

census as a guide, the Commission found that you don't have to be precise. It is a broad picture that is necessary and certainly you do not call 100 acetylene producers to prove that they represent one per cent of the market. These major producers represent most of the acetylene sales.

As Mr. Topkis said, these were backyard, on a question from Mr. Topkis to one of the witnesses, you have all these backyard generators production acetylene but they are not important;they are insignificant, as far as this case is concerned.

We feel if we don't get this out of this witness we are going to have to recall possibly Mr. Flamm and Mr. Baker to get the same kind of testimony we are wanting from this witness, from an executive of the industry, in the companies, people who have held positions in the trade association can give the estimate of the size, their estimate of the size of the market and the ones that account for the majority of that market. This is Papercraft right on point.

We intend to rely on census but we intend to show it through another way, through testimony, and I believe through a witness like this.

I believe I was precluded on Mr. Flamm from asking him what portion all these producers are named, all of them name the same producers, we were precluded from asking them what per cent they would account for. Maybe I should have

asked for an offer of proof but if we can get a ruling from Your Honor we possibly would like to bring these major people back and ask them what these producers enunciated by this witness would account for.

JUDGE BARNES: Do you have a quotation from Papercraft, Mr. Nickel?

MR. NICKEL: I have it in front of me, Your Honor.

JUDGE BARNES: I assume you are concerned primarily with the acetylene market?

MR. NICKEL: Yes, Your Honor.

There are also a few companies that distribute some medical gases such as nitrous oxide which are also insignificant.

JUDGE BARNES: In the Papercraft case, and it is reported in Volume 78, Federal Trade Commission decisions at page 1405, the Commission did permit on direct examination or at least approved examination of witnesses on direct examination. They were permitted to name the major firms their respective companies competed with. They were permitted to estimate the total market those majors accounted for. They were permitted to estimate the total dollar volume of sales in the U. S. and to explain the basis of their estimates.

The Commission went on to say that in an industry such as the one involved here where there is a simple core of major firms surrounded by a score of more or less relatively

unimportant local original producers, really precise market data can be prohibitively expensive and burdensome to obtain. So, they approved questions along that line.

I will permit you to direct your questions along these four categories that the Commission set forth.

MR. NICKEL: Thank you, Your Honor.

Your Honor, I might just add that the Papercraft decision was recently affirmed by the Seventh Circuit of the U. S. Court of Appeals.

JUDGE BARNES: I am familiar with Papercraft.

By Mr. Nickel:

Q Mr.Kimerling, approximately what share of industrial gas shipments in the United States in 1972 would you estimate were accounted for by the industrial gas companies that you have named?

JUDGE BARNES: I think we have to be more precise. Let him name the companies or name the majors.

By Mr. Nickel:

Q Mr. Kimerling, you mentioned the independent gas companies that were presently in existence, and you mentioned the major gas companies that are presently in existence.

MR. NICKEL: Your Honor, would you like the witness to re-name those companies?

JUDGE BARNES: Yes. I would like for him to name first the companies that he competes with. I believe he

did that once but he can do it again.

By Mr. Nickel:

Q Would you do that, Mr. Kimerling, first?

A Linde -- these are the companies --

Q That you compete with in your marketing area.

A Linde, AIRCO, Air Products and Chemical, Chemetron, Liquid Air.

Those are the majors you are talking about.

Q Right.

JUDGE BARNES: The independents that you compete with.

THE WITNESS: When you have Selox, Southern Cyrogenics, or the basic independents now. Then you are talking about acetylene.

By Mr. Nickel:

Q No; principal companies. I am interested in principal companies.

Do you consider that acetylene manufacturer a principal company?

A When you are talking about selling acetylene only.

Q No; with respect to the overall gas market, would you consider that acetylene producer --

JUDGE BARNES: He is naming the companies he competes with.

THE WITNESS: Then Mumm's Gases for acetylene.

JUDGE BARNES: You did not mention the Big Three. Do you compete with Big Three?

THE WITNESS: We are afraid to.

By Mr. Nickel:

Q. In addition to those companies, would you name the other industrial gas companies in the U. S. that are in existence today?

A The major ones would be Big Three and Liquid Carbonic, as far as major gas companies.

Q What about independents?

A Well, your independents would be National Welders, Burdett of Norristown, Burdett Oxygen Company of Norristown, Burdett Oxygen of Cleveland, Northern Gases, Pacific Oxygen Company on the west coast, Whitmore, Kansas, if they are still manufacturing -- I don't think they are --

JUDGE BARNES: Is that the source of your recollection?

THE WITNESS: Yes. There may be one or two I don't remember without writing them down.

By Mr. Nickel:

Q What share of U. S. industrial gas shipments in the U. S. in 1972 --

JUDGE BARNES: Let us establish the total market first.

By Mr. Nickel:

Q Mr. Kimerling, what would you estimate to be the total

industrial gas shipments in 1972 in the U. S.?

MR. TOPKIS: Is this in dollar volume?

MR. NICKEL: Dollars.

JUDGE BARNES: Is it plant or sales? What does it include? Does it include acetylene? Medical gases?

By Mr. Nickel:

Q It includes industrial gases.

A This would be strictly from recollection because we really are not too much interested in the total gas market.

I assume it is around seven or $800 million, just based upon a recollection of various reports that you read around.

MR. TOPKIS: I move to strike, Your Honor, on the basis of the witness's own testimony.

JUDGE BARNES: I will leave it in the record but I don't think it is very helpful.

By Mr. Nickel:

Q Of that seven or $800 million figure, the universe figure that you mentioned, approximately what share of that would be accounted for by the industrial gas companies that you have mentioned?

A Almost all of it; 95 per cent.

Q In your marketing area, Mr. Kimerling, what is the present supply and demand situation for industrial gases?

A Very tight.

Q Does the same situation exist throughout the U. S.?

A That is my understanding.

Q How long have industrial gases been in short supply?

A Two to three years.

Q What effect, if any, has the present shortage had on prices of industrial gas?

A It has been very helpful.

Q Is Alabama Oxygen Company presently operating at full capacity?

A Yes; we are.

Q How long has Alabama Oxygen Company been operating at full capacity?

A Two to three years.

Q Mr. Kimerling, what is required to enter the industrial gas business inthe U. S. as a producer and marketer?

A You have to have several elements. First of all, I will list them as I come to them, you have to have financial resources because it is capital intense business. So, you would have to have financial resources.

You would have to have a high degree of technical knowledge, knowing what equipment to select, how to put it in operation, how to keep it operating at a profitable mode.

Then you would have to have marketing knowledge of the markets and how you approach the markets and things connected with the customer.

Q Which aspect would you consider to be the most crucial so

far as the technical knowledge needed to make a successful entry?

A Could you put that again?

Q You mentioned several aspects of the industry required knowledge, technical knowledge of the industry, marketing.

MR. TOPKIS: Wait.

The witness spoke of three factors: financial, technical knowledge and marketing knowledge. Now, to ask him what element in the technical knowledge did he mention, the answer is that he didn't mention it.

MR. NICKEL: I will withdraw the question.

By Mr. Nickel:

Q Mr. Kimerling, are you familiar with the British Oxygen Company?

A Yes; by name and reputation.

Q Are you familiar with any subsidiaries of the British Oxygen Company?

A I believe Canox in Canada has been for some time.

I think Frazier-Sweatman now, just recently; and Harris Lake. Three I am familiar with.

Q Where does Harris Lake operate?

A I think they are out of Cleveland.

Q How is it you are familiar with Frazier-Sweatman and Harris Lake?

A We distribute, I don't say all their products, but we

distribute Harris Lake regulators and various accessories; we distribute Sweatman dental analgesic equipment.

Q Do you know any of the officers of either the British Oxygen Company or its subsidiaries?

A Probably the only one I know would be Allen Perham.

Q Which company is he with?

A Canox. I guess he is with Canox.

Q Do you know what his position is with Canox?

A He is one of the chiefs, if not the chief.

Q How long have you known Mr. Perham?

A Ever since I got active in the industry; for years.

Q In your business judgment, do you consider the British Oxygen Company to have the capital resources and technical expertise needed to enter the industrial gas market in the U. S.

MR. TOPKIS: Objection, Your Honor.

The witness has demonstrated, however good his faith, he doesn't have knowledge to know anything about BOC except Mr. Allen Perham. We have stipulated we have money. No doubt about that.

MR. NICKEL: Your Honor, he stated he is familiar with the reputation and he has known Mr. Perham for a number of years. He is familiar with two of the subsidiaries.

MR. TOPKIS: Those two subsidiaries in the aggregate do four million dollars of business a year. BOC is a company

that does hundreds of millions of dollars business a year. Those two subsidiaries are in the medical field and not in the gasses field. Canon he believes he things Mr. Perham is connected with. He is right.

JUDGE BARNES: I don't think he has demonstrated sufficient familiarity with BOC to answer that question.

I will sustain the objection to the question.

MR. NICKEL: Your Honor, could I attempt a couple more foundation questions?

JUDGE BARNES: Yes.

B/ Mr.Nickel:

Q Mr.Kimerling, you indicated you are familiar with BOC's reputation.

Will you elaborate on that?

MR. TOPKIS: Objection, Your Honor.

Our reputation is splendid, terrible or anything else the witness wants to say. Whatever he says, it is no basis for going further.

MR. NICKEL: Your Honor, by "reputation", this witness may mean the nature of BOC's capital resources and expertise.

MR. TOPKIS: Our capital resources are substantial; our technical expertise is very high. So what?

JUDGE BARNES: I am sure the record will show. I am sure you will have better evidence to give me the capital structure of BOC. They have been in the industrial gas business

for years. What else can the witness add to that?

MR. NICKEL: I will move on, Your Honor.

By Mr. Nickel:

Q Prior to BOC's stock acquisition in AIRCO, did you consider BOC likely to enter the U. S. industrial gas market?

MR. TOPKIS: Objection, Your Honor.

JUDGE BARNES: I believe I have permitted this type of question before. I will permit it.

THE WITNESS: I would consider that at some point in time that they probably would have an interest in coming into the United States market, having operated in Canada, having had a close association with AIRCO, BOC plants, having had a piece of the action of Harris Calorofic, which is a manufacturer of gas equipment; they had a pretty good idea of what was going on in this country. If they didn't, they could certainly find out in a proper and pretty effective way. If they are going to expand, this is the greatest country there is.

By Mr. Nickel:

Q Have any companies contacted Alabama Oxygen Company for thepurpose of acquiring Alabama Oxygen Company?

A Are you talking about serious or cursory?

Q Serious contacts, serious negotiations.

A Yes,sir.

Q Would you name those companies, please?

A I would say AIRCO and Liquid Air.

Q When did AIRCO contact Alabama Oxygen Company for the purpose of acquiring the company?

MR. TOPKIS: Objection, Your Honor.

What does that have to do with this case?

JUDGE BARNES: What is the relevance of the question?

MR. NICKEL: Your Honor, I think it is reasonable to anticipate that BOC on their defense will indicate that there are no small companies in this market worthy of BOC's time and effort. BOC's co-respondent, AIRCO, if the witness is allowed to answer the question, was very interested in acquiring Alabama Oxygen and considered it a company worthy of their time and effort.

JUDGE BARNES: I believe he said they made a serious offer.

I will let you tell me what year this was.

THE WITNESS: 1972; from about April through September or October of 1972, during that span of time.

By Mr. Nickel:

Q What was the result of the discussions with AIRCO?

A They didn't come to fruition.

Q For what reason didn't they come to fruition?

MR. TOPKIS: Objection.

JUDGE BARNES: I don't think we need to go further on this.

MR. NICKEL: Your Honor, I would like to make an

offer of proof on that last question.

JUDGE BARNES: Mr. Nickel, we have testimony that AIRCO made a serious offer for the business in 1972.

Isn't that sufficient for your purposes?

Do you want me to have to determine why the negotiations broke off, whether Mr. Kimerling wanted too much money or something of that nature? Is that really important to your case? I don't think it matters.

MR. NICKEL: Your Honor, I will drop the matter.

Your Honor, I have no further questions.

CROSS-EXAMINATION

By Mr. Topkis:

Q Mr. Kimerling, my name is Jay Topkis. I represent British Oxygen. I believe we had the pleasure of talking on the phone a couple weeks ago.

A Yes; we did.

Q Do you consider it possible down through the years that BOC might some day decide to enter the American industrial gases field? Is that your testimony, sir?

A I didn't consider it every day but I considered it, when asked a question, to be a good likelihood they would at some point.

Q You don't know whether it would be next year, five years or 10 years from now; is that right?

A Given the right opportunity.

Q It would depend on the opportunity?

A Certainly.

Q Would you say the same: Do you know the German firm Messer Greisheim?

A I am familiar with the name.

Q You have heard of their reputation?

A Not as much so.

Q Do you know the Swedish firm AGA?

A I am familiar with that name.

Q Are you familiar with their capital resources?

A I understand it is the Crown of Sweden.

Q If asked, would you expect that the Crown of Sweden would be interested in coming into the, what di dyou call it, the largest industrial gas field in the world?

JUDGE BARNES: He said the greatest country in the world.

Did you mean for the industrial gas business, Mr. Kimerling?

THE WITNESS: I have no knowledge of industrial gas compared to the rest of the world but I assume it is probably, you know, probably very large, if not the best.

By Mr. Topkis:

Q Would you expect, then, that any international company would sooner or later think of coming into the United States?

A Liquid Air did; L'Air Liquide did.

Q Would you expect that the Swedes would do the same?

A Not as much so; no

Q Why not?

A Because they didn't have the basic organization going for them that these other companies had.

Q Did you really know anything about the Swedes except that it was the Crown of Sweden?

A I knew they were in Mexico. I knew they were in various other, you know, less industrialized countries in this hemisphere and that they didn't have any plants here; they didn't have any real marketing arms here and that they weren't, the nature of their representation in this country along that line was rather slim.

Q Do you know whether AGA sells welding equipment here?

A Yes; they try to.

Q And they do, don't they?

A Yes.

Q You don't distribute for them?

A No.

Q Have you heard that AGA approached Burdett of Norristown and Burdett of Cleveland with an eye to acquisition?

A I would say, Mr. Topkis, that I probably heard every rumor in the business.

Q Okay, sir.

Speaking of rumors that you have heard, what do you know

about Canox? Is it a large company or small company?

A I understand it is a very fine company.

Q I will so stipulate, but is it a very fine large company or is it a very fine small company, or don't you know?

A I think it is my understanding it is one of the major companies in Canada.

Q That might still make it a very large company or a very small company; isn't that right? Isn't it a fact you don't know about Canox?

A I am telling you all I know.

Q Do you know how many air separation units Canox has?

A No, sir.

Q You have some air separation units?

A Yes.

Q How many, sir?

A Two.

Q What size are they in tons per day?

A I would say together they are between 30 and 35 tons per day.

Q And individually?

A Individually, five to seven and 28 to 30.

Q Would it startle you to have it suggested to you that your capacity is twice that of Canox's air separation units?

A No.

Q Now, the possibility that Canox or BOC might enter the

American market has never caused you to raise or lower any of your prices?

A I have enough problems at home.

Q And the same thing is true about any decision that you have made;none of them have been affected by BOC or Canox?

A Correct.

Q Now, you say that you have enough problems at home.

You have told us that you compete with Linde,AIRCO, Air Products, Chemetron, Selox, Liquid Air and Nunn is that right?

A Southern Cryogenics, some time.

Q Is that as much competition as you can chearily handle?

A I am not certain I handle that but that is as much as I like to handle.

Q You don't think you need any more?

A No.

Q You don't think there is lack of competition in your area?

A For me as an individual that is enough.

Q In the marketing of oxygen and hydrogen, you can't ship out too far from your plant, can you?

A Well, it depends.

Q How far do you ship?

A Two or 300 miles.

Q Not beyond that? It becomes economically unacceptable;

is that right?

A That is about right.

Q And that is true generally throughout the United States, isn't it, varying slightly depending on concentration of population and business?

A I think you might say in some cases the big companies ship products a lot further than that.

Q Oh, sure.

In extraordinary situations.

A That may be a rule of thumb but I don't know that that is necessarily an operating mode.

Q But that is a fair rule of thumb; 300 or 300 miles is the economic radius of shipment?

A Yes; depending on your contract at the other end, too, you understand.

Q I understand that.

Now, you spoke of the majors who are in the gas business producing gases. To your knowledge, does U. S. Steel produce gases?

A Not in my area.

Q They do produce gases, though, don't they?

A I really don't know.

Q You don't know whether U. S. Steel owns four air separation plants?

A You mean do they have captive plants?

What?

Q Whatever you want to call them.

A I would assume that some of the steel companies, some of the chemical companies, either do at some time or other own captive plants, that is, plants for their own use, you know, by which they supply their own requirement. If they have some surplus, they may let someone buy their surplus in liquid from them. It has not happened in any market that I know of.

Q You say you would assume.

May I infer from that that you don't claim much knowledge in this field?

A Correct.

Q Now, you mentioned that you assumed that steel companies and chemical companies might do this.

How about petroleum companies?

A I am speaking chemically, which would be petroleum.

Q None of these happens in your immediate vicinity?

A No.

Q You haven't taken the production of any such plants and possible sale of any such plants into consideration in the estimates that you offered here before, have you, as to who accounted for what percentage of the total shipments or whatever?

MR.NICKEL: Objection, Your Honor.

Steel companies that have capitve plants don't have

shipments.

JUDGE BARNES: He has asked him if he has taken it into consideration.

THE WITNESS: I am thinking in terms of the people I competes with, not in terms of U. S. Steel or Gulf Oil Company or somebody like that.

By Mr. Topkis:

Q So, you did not take U. S. Steel, Gulf Oil Company?

A Yes; I did. I excluded them.

Q You excluded them from your calculations?

A Yes. I don't consider them competition because they are not; they are over the fence.

Q You told us you already have enough competition.

A Yes.

Q You don't claim a familiarity with the industrial gases field around the world, do you, sir?

A Hardly.

Q So, you don't know how opportunities in other parts of the world would compare with opportunities in the United States or Mexico or Canada in industrial gases; is that right?

A No, not specifically.

Q You haven't had any occasion to study the possible return on an investment in Brazil or Tanganyika or any of the emerging countries?

A No; I have no desire.

Q Let me ask you a question, sir, about some companies, and I want you to tell me whether, to your knowledge, they are in the industrial gases field.

Puritan-Bennett, Kansas City, Missouri.

A Yes, sir.

Q Midwest Solvents in Atchison, Kansas?

A I don't even know them.

Q SEC Corporation in El Paso, Texas.

A I don't know what they do.

Q It has been suggested to me that they are very extensively involved in the carbon dioxide business.

Does that ring a bell for you?

A No, because we are just a distributor of carbon dioxide. We don't get into that, who the manufacturers of carbon dioxide are.

Q So, you don't claim familiarity with the manufacturers or carbon dioxide on a nation-wide basis?

A No; only the ones who come around and see us and want to sell us products from time to time.

Q How about Southwest Cryogenics of Houston, Texas?

A They are in the carbon dioxide business.

Q You didn't name them before.

A Yes, but I think my question was directed more to the gases that we produced as opposed to distributed.

Q I see.

So, those were the companies and gases you took into account?

A Yes; not the CO_2 producers.

Q How about Acetylene Oxygen Company of Harlingen, Texas?

A Yes. I don't know whether they are still operating the plant or not.

Q And the D. E. Lilly Oxygen of Cleveland, Ohio?

A I don't believe they are still operating their air separation plants.

Q They had one until quite recently.

A I think they shut it down and are buying products elsewhere. They operate an acetylene plant.

Q But they are still in the business of selling atmospheric gases under acetylenes?

A Yes.

Q Indiana Oxygen?

Do you know that company?

A Yes. I am familiar with the name. It used to be the Brant Oxygen Company. But I am not sure they still operate their air separation plants, either.

Q Whether they operate or don't operate their air separation plant, they are still in the business of selling atmospheric gases, aren't they, and acetylene?

A Yes. I assume there are hundreds of those.

Q Do you know the Industrial Oxygen Company of Louisville,

Kentucky?

A Yes. That is one of the names that used to have an air separation plant. I don't know whether they still operate or not.

Q You just don't know?

A Right.

Q How about Carbonic Engineering of Lathrop, California?

You don't know the company?

A No.

Q Do you know Carbo Chemical Company of Salt Lake City?

A No.

Q Do you know the --

You mentioned Kansas Oxygen, I believe.

A Yes, sir.

Q How about Superior Air Products of Sayreville, New Jersey?

A They are not a producer of gases. They are a producer of plants.

Q They are not a producer of gases?

A Unless they have some side business. They are a producer of plants.

Q It has been suggested to me that they manufacture and sell or generate and sell oxygen and CO_2.

Does that accord with your understanding?

A Superior Air Products?

Q Yes.

A It may be.

That is not my relationship with them. My relationship and the knowledge is that they are a supplier of equipment.

Q You couldn't say of your own knowledge that they do not?

A No; I wouldn't.

Q That is true of the others which you couldn't identify; isn't that right?

A Yes.

Q You haven't gone through any course of preparation, going around studying the country to figure out who is producing industrial gas and who is selling it, have you?

A Right.

Q When you gave your statement as to the total value of your shipments for 1972 of industrial gases, you gave us a figure of $2,585,512, according to my notes.

A Yes, sir.

Q Where did you get that figure from, sir?

A From my sales recap sheets.

Q Do your sales recap sheets reveal, or I will put it open-endedly: What does that two million five figure represent? Does it represent your invoice price, your invoice price less a shipping charge or what?

A Invoice price.

Q Are shipping charges included in your invoice price?

A Yes, sir.

Q They are not separately stated?

A No, sir.

Q So, all your customer knows is that delivered at his door is a certain quantity of industrial gas that costs him so much; is that right?

A Right.

Q So, that is what you meant by the total value of shipments, $2,585,000--some-odd; is that right?

A Yes, sir.

Q Now, you also gave us a figure, sir, for 1972 of the gases that you produced, as well as marketed.

For that, you gave us a figure of $1,722,000.

A Yes, sir.

Q How did you derive that figure?

A Well, that is dropping out the non-produced gases, gases that we don't produce, and then taking a distribution factor.

As I recall, the question was the value f.o.b. plant, not value, invoice value. So that you had two factors: One was those items that were dropped out that we don't produce, and then applying a distribution cost factor.

Q Both of those were estimates, to the best of your knowledge; is that right?

A Well, they are aggregate in the sense that they are coming from our work papers but obviously they have to be a form of estimate but they are based on work papers.

Q I notice the figure you gave for the total value of shipments was precise to the last dollar and the figure you gave us for the gases produced and marketed by you was rounded to the nearest thousand. That suggested to me it was an estimate.

A Yes, but a very close estimate.

Q Okay; fine.

MR. TOPKIS: Now, I think the only other thing I would ask of Mr. Kimerling, Your Honor, I must ask with an apology.

I forgot to ask for the Jenck's Act material.

JUDGE BARNES: All right.

MR. NICKEL: Your Honor, Complaint Counsel does not have any verbatim statement or substantially verbatim statement of Mr. Kimerling in our possession. We do have some interview notes which I will now show Your Honor.

JUDGE BARNES: These are attorney notes, attorney work product. They are not substantially verbatim recordations of the witness's statements.

MR. TOPKIS: Thank you, Your Honor.

I have no further questions.

MR. WOLLEN: We have no cross-examination.

REDIRECT EXAMINATION

By Mr. Nickel:

Q You testified that the net value of industrial gas shipment of your company for calendar year 1972 was $2,585,512.

You indicated on cross-examination that that figure included distribution charges.

What percentage of that figure is represented by distribution charges?

A Well, the distribution factor I used was 15 per cent for distribution cost.

MR. NICKEL: No further questions, Your Honor.

MR. TOPKIS: No further questions.

JUDGE BARNES: Mr. Kimerling, thank you very much.

Do you hae another witness this morning?

MR. THURMAN: The other witness was not leaving Chicago until 10 o'clock this morning. Therefore, we could not get him earlier to start this morning. We will put him on this afternoon.

At this point, I would like to take up another matter with Your Honor, if we may.

Would you like to have a recess?

JUDGE BARNES: Let us take a 10-minute recess.

(A brief recess was taken.)

JUDGE BARNES: We are ready to proceed.

MR. THURMAN: Your Honor, we have possibly a little problem here.

The schedule for a witness this afternoon was a witness named Gallagher. He is Chairman of the Board of Chemetron. We received a call that he had pressing business

and could a witness be substituted. We said it was all right with us and we would take a person possibly in charge of industrial gases.

I had Mr. Hoagland call Mr. Topkis Friday and Saturday and relay this information to Mr. Topkis. My understanding was that there was no objection. Now I understand there might be objection to this.

I think we should have been informed if there was an objection on Saturday when we could have called him back.

In any event, we have a substitute witness here for Mr. Gallagher. We have not talked to this witness. Certainly, if we talked to him, we would like to afford Mr. Topkis a chance to talk to the witness. It would be the same questions along the line we have been asking of all industrial gas producers.

I would like to bring this to Your Honor's attention.

JUDGE BARNES: It seemed to me I heard Mr. Gallagher's name mentioned in some previous testimony.

MR. THURMAN: His name was mentioned as far as contacts as far as possible purchase of Chemetron.

JUDGE BARNES: You might have trouble covering that subject with the substitute witness.

MR. THURMAN: We think the fact that they contacted them was well-established. We would not call him for that purpose. We would not ask him those questions on direct

examination, anyway. If there are questions about that still remaining, it would be a defense problem and they could call Mr. Gallagher on defense if they want to establish there wasn't any meeting. This would not be something that we would go into.

JUDGE BARNES: What is your position, Mr. Topkis?

MR. TOPKIS: Your Honor, I certainly am totally in sympathy with substituting witnesses where it has to be done and I don't want to inconvenience anybody. I don't mind having Mr. Cunningham, I think his name is, coming in and testifying in place of Mr. Gallagher except that I take counsel's statement at their face; they have not talked with Mr. Cunningham. Therefore, they have no idea whether Mr. Cunningham has anything to contribute to this case or not.

I might say that notice of this switch, and I repeat I don't mind switches. I might call on my friends for the same indulgence. As an old trial lawyer, I know how these things develop.

I don't think we ought to be calling witnesses to testify here about whose testimony we know nothing.

Now, this came up in a context Saturday afternoon of a call to me from Complaint Counsel telling me that this was going to be a one-day week. They told me their plan was to call Mr. Cunningham in lieu of Mr. Gallagher and then to ask Your Honor to adjourn for the week because they didn't want to

call any of the other witnesses who were scheduled for the week except for Mr. Lenhart of CGA and Mr. Kuhn also of Chemetron, but I believe they have a medical operation. I said I am going to object tothat and I certainly do object to that.

I repeat that I would not mind Mr. Cunningham coming in to testify if he has something to say.

JUDGE BARNES: I think from my own knowledge Chemetron has been mentioned as a competitor, probably by every witness that we have had, and I assume he would be along the line of Mr. Flamm and other witnesses from the industry?

MR. THURMAN: Yes, Your Honor.

We were assured by counsel that he was very knowledgeable in industrial gases field.

JUDGE BARNES: Do you intend to solicit his sales data along the lines you examined the witness this morning?

MR. THURMAN: Yes, Your Honor.

JUDGE BARNES: How about the second problem of no other hearings this week?

MR. THURMAN: Your Honor, Mr. Popkis is right. We intended to shorten this trial but shorten it one way which is to shorten it during the trial by cancellation of some witnesses. The only way to shorten the trial is to move everybody's schedule for the third week up to the second week,

and that is impossible. Nobody can do it. Therefore, I had decided to cancel some of these witnesses.

Mr. Josephian I don't think can add anything to these proceedings. He is a small producer. He has no more than what is already in the record.

JUDGE BARNES: You intend to cancel --

MR. THURMAN: Several of these people.

JUDGE BARNES: Which ones are you going to cancel?

MR. THURMAN: As a preface, I don't think this is a surprise to my friends because I believe las week I did state that we would shorten this week as much as possible.

JUDGE BARNES: It is a surprise to me.

MR. THURMAN: I stated on the record we would try to cut out Friday and Thursday, if possible, and shorten the week.

JUDGE BARNES: I belies it was mentioned that perhaps next Friday could be an open day. Beyond that, I don't recall any discussion about a one-day week.

Whom are you cancelling?

MR. THURMAN: Josephian, Glazier and Gardner, Crescenti, Stanton, and possibly Lenhart, or, if we call Lenhart, it could be the following week.

JUDGE BARNES: Who is Gardner with?

MR. THURMAN: Mr. Gardner was the originator and owner of Gardner Cryogenics. It was very well established

as far as we want to establish on the record the attempts or the interest shown in Mr. Gardner.

JUDGE BARNES: How about Mr. Glazier?

MR. THURMAN: Mr. Glazier was with the Big Three. Mr. Glazier might possibly have to be called at a later date. We have put in for a stipulation of sales. About the only thing we would like to get out of Mr. Glazier would be his sales data. We submitted a stipulation to Mr. Topkis a week ago or so. We haven't heard anything. We keep asking and they still haven't decided.

The stipulation is not going to do us any good if we get it after the trial is over.

MR. TOPKIS: We got that material on Thursday. We are prepared to discuss it today.

JUDGE BARNES: Whom is Mr. Lonhart with?

MR. THURMAN: Mr. Lonhart is with the Compressed Gas Association.

JUDGE BARNES: You say he can be moved?

MR. THURMAN: To the following week.

JUDGE BARNES: And Mr. Josephian?

MR. THURMAN: Mr. Josephian is the President of Pacific Oxygen. He started the company and still operates it.

JUDGE BARNES: Did you have a problem with sales data there?

MR. THURMAN: Yes, but we don't think it is feasible

to call Mr. Josephian all the way from Oakland, California, just for sales data, if we can work out some type of stipulation.

JUDGE BARNES: How about Mr. Crescenti?

MR. THURMAN: Mr. Crescenti is from Liquid Carbonic. The same thing would be for sales information.

JUDGE BARNES: And Mr. Stanton?

MR. THURMAN: Mr. Stanton is Carpenter Technology which acquired Gardner.

JUDGE BARNES: And Mr. Kuhn?

MR. THURMAN: Mr. Kuhn we would like to call but we would like to have him moved up to Monday.

JUDGE BARNES: Whom is he with?

MR. THURMAN: Chemetron.

JUDGE BARNES: He is in a different market?

MR. THURMAN: He is in medical.

JUDGE BARNES: Now, the following week, the witnesses all have to do with the medical market; is that correct?

MR. THURMAN: Yes, except I don't believe we will call Mr. Lenhart. If we called Mr. Lenhart, he would be the gases and medical.

JUDGE BARNES: You see, you present me with a problem. You have one, two, three witnesses that you may have to call on sales data.

MR. THURMAN: We have a lot more than that.

We have specified all along if we can't get stipulations there will be a lot of people who will have to be called. We don't think the Government should have to go to that expense.

JUDGE BARNES: Are we prepared to discuss the stipulation?

I think, to me, it is a little bit ridiculous to adjourn for a week and we don't even know where we stand; we may have to call all these witnesses and many more, so you say.

Mr. Topkis, what is the progress on the stipulation of sales?

MR. TOPKIS: Your Honor, we received a certain amount of census data, copies of reports filed with the census authorities, from our friends. I may say parenthetically that that raises in my mind the question of what is all the shooting about over that subpoena because that subpoena called for those very reports which have now been turned over to us voluntarily; still we are being fought on that subpoena on the issue of how confidential those reports are.

We are prepared to stipulate that any report filed with the census authorities, those reports were filed with the census authorities. That is all we are prepared to stipulate; that is what we are asked to stipulate.

MR. THURMAN: I believe we are asking to stipulate that those were the shipments.

MR. TOPKIS: Your Honor will recall that Mr. Flamm said that, as a matter of industrial respect, the reports of the census on volume are respected and accepted. He said that the reports to the census as to dollar sales are not.

JUDGE BARNES: I don't recall that.

MR. TOPKIS: I can read it to your Honor.

You asked Mr. Flamm: "Mr. Flamm, are you able to state in your recollection the dollar figures that are reported to the census?"

The witness said, "I am, but with the stating of that figure I would like to qualify or give an editorial comment of my concern over the lack of any significant validity of the figure. So, if I state the figure, I would like to qualify it. I can state the figure, though."

You said, "All right, sir."

The witness said, "The figure as reported was approximately $153 million. However, due to the very vague, single line definition in the instructions from the Bureau of Census which merely says report for the various volumes" -- and the witness interpolated, "By the way, we believe volumes are good data" -- "merely says report the f.o.b. value at the various producing locations. That word or phrase 'f.o.b. value' is undoubtedly defined differently, I would guess, by everyone in the industry. I know when we reviewed this recently we changed our mind as to how it should be defined. So,

we do not assign any credibility to that figure at all and do not use it in house. It is merely reporting a request from the Department of Commerce. In fact, if we were to look at that figure today, our best judgment in 1972 would have been about 120 to $125 million on the same volumes that the $195 million were recorded."

So, I am prepared to stipulate that dollar figures were reported to the census but I am not prepared to stipulate what those were shipments.

MR. THURMAN: Some way we have to work out the shipments. Certainly there are shipments in the market. We are interested in the facts. We don't care which way it goes.

JUDGE BARNES: I am certain I don't care but it is time now that you make up your mind what proof you want to put in the record. Don't ask me what you want, whether you want volume or dollars or production or sales. That is not for me to determine. It is for you to determine.

I think you should have known even before now exactly what you wanted to prove. If it is dollar sales, why can't you get a statement from these companies? Certainly Pacific Oxygen, it does not seem reasonable to have to pay his expenses in here and back and take his time just to get sales figures.

Don't there some way we can get those?

MR. THURMAN: Yes. We know what their sales

figures are.

JUDGE BARNES: Do you have a certified statement from him?

MR. THURMAN: We don't have it right now. We were going on the premise and we believe the Commission ruled that the census data is reliable.

Now, even though Mr. Flamm made his statement, we got both figures from Mr. Flamm, $195 million and $154 million.

The way we were going to approach it from there was use census to check and use the Papercraft technique of letting the industry members state who the principal competitors were and what portion of the market they represented, which would be sufficient. We have not been allowed up to date to ask those questions.

Therefore, we might want to call, we will want to call, Mr. Flamm unless we get a stipulation of sales, call Mr. Flamm and Mr. Dexter back for those particular questions along Papercraft.

JUDGE BARNES: It would have been very helpful to me if, on the first day of the trial, you could have gotten up and said, "Your Honor, this is what we intend to prove; this is how we intended to prove sales figures, production figures, and we intend to rely on Papercraft", and you could have had the Papercraft decision in for me.

If you could have outlined for me at that time how

you were going to go about proving your case, we could have had some rulings the first day. It is a little late in the game now to start recalling witnesses for questions that should have been developed when they were here.

MR. THURMAN: I am remiss that I didn't have Papercraft here but Your Honor recalled I did mention Papercraft.

JUDGE BARNES: At no time did you outline to me the manner in which you intended to go about proving your market.

MR. THURMAN: No, sir; I did not.

JUDGE BARNES: It seems to me you have these people under subpoena, you ought to call them in here.

MR. THURMAN: We will get on the phone and call these people in then; Glazier, and --

JUDGE BARNES: They are under subpoena now.

MR. THURMAN: Yes, sir; they are under subpoena. There is no reason why we can't call them in here. We are going to be cumulative. All we will get is their sales but we will be glad to do that. If we can't get stipulations out of Respondent's counsel, we will call everybody in the industry.

JUDGE BARNES: I don't think you have given him anything to go on. If you have the sales figures in here under oath, perhaps he would have accepted those. I don't know.

MR. TOPKIS: I certainly would be awfully tempted, Your Honor.

JUDGE BARNES: We know that Pacific Oxygen is not a major producer. A lot of testimony said they were regional. Big Three, I don't know; everybody mentions Big Three.

It does seem that we should be able to get together if the only thing we want is sales figures.

MR. THURMAN: They are just cumulative.

JUDGE BARNES: Where are your sales figures?

MR. THURMAN: We gave him sales figures on stipulation. We have during the calendar year shipments for industrial gases for Packfic Oxygen Company were approximately and we have the figure.

JUDGE BARNES: Where did you get the figure?

MR. THURMAN: From Census.

JUDGE BARNES: You pointed out there may be problems.

MR. THURMAN: The only other thing I can do is go out and get verified statements that these were shipments. One witness testified that he didn't think Census was reliable. I don't think that completely destroys the reliability of Census when one witness says I don't believe this is the way it should be.

MR. TOPKIS: There has not been a witness who has testified, Your Honor, who has not said that he has had to estimate the value of his shipments to knock out delivery charges and other things. I may say I don't want to cause any difficulty. We have a figure on Pacific Oxygen that is a

couple million dollars or something like that. They are a trifle. No question about it. It seems to me that we have whatever we need here. We know there are seven or eight big companies in this field. There is no doubt about it. There are a lot of much, much smaller ones. But if I am pressed so that we can play one of those fancy percentage games, the top four made 43 per cent and the top eight made 67 per cent, I am not going to get myself into that box because I don't know.

JUDGE BARNES: I think that is what they want to establish.

MR. TOPKIS: That is some kind of rule game. It is not a world of reality.

MR. THURMAN: I guess I don't understand Mr. Topkis's statement that it is not a world of reality. My understanding is that we want to show that the concentration is higher. If you stipulate concentration is high, at least to the figures in the complaint, there is no problem.

MR. TOPKIS: We have not even talked to the fact that these so-called captive plants account for a very high percentage of total production in the field. U. S. Steel is supplying itself with just about all of its oxygen needs. If big steel is supplying itself and Ford Motor Company is supplying itself, and that is true, too, a lot of these petrochemical companies are, there is an awful lot of industrial gases. We will want stipulations as to those, too, of course. That is the quo we

want for the quid.

MR. THURMAN: We will give stipulations on what they produce. That is a matter of argument. We don't believe that is in the market. There are no shipments involved. They are furnishing themselves. They are vertically integrated. Certainly we are not going to object to saying, if he can give us reliable figures, and this is part of his defense, we are not going to object to that. We will surely let the facts get in as long as they are relevant to his part of the case.

We don't consider this as being part of our market.

JUDGE BARNES: What are you calling the witnesses for next week? You did have some medical doctors and so forth. Are they still on the list?

MR. THURMAN: Yes, Your Honor.

We have no overall universe for these medical products. We want to establish through these people what products make up the various equipments that are alleged in the complaint and that that should be a market. Papercraft is very important in the next week since there is no census report to establish companies; each one testifies to make up 95 per cent of the market.

JUDGE BARNES: But you issued suepoenas to some 20 or 25 companies and you received verified statements of sales figures from them on the medical products; is that correct?

MR. THURMAN: Yes.

JUDGE BARNES: How do you intend to get those figures in the record?

MR. THURMAN: We are trying to get a stipulation. We have given copies of all this to Mr. Topkis.

MR. TOPKIS: We have looked at those, Your Honor. They are totally inconsistent with each other. We really can't, I am afraid, stipulate that those figures have any meaning at all. Sure, we can stipulate about how much oxygen somebody sells. But when you ask one man how many valves did you sell and ask another man how many valves and connections did you sell, one guy responds one way and the other guy another way, you get nowhere. You just get totally confused.

MR. THURMAN: We have specified the market and try to go break down the products in that market. The only way we know how to go about it is to get the sales of those products that make up that market.

JUDGE BARNES: If youcan't get a stipulation, how are you going to go about proving the sales figure?

MR. THURMAN: We will call everybody.

JUDGE BARNES: When? We have a week now with nothing to do.

MR. THURMAN: We will call them the third week. If we have to add the sales, we will go in the fourth week.

JUDGE BARNES: All of those companies whose verified statements you have?

MR. THURMAN: Yes.

JUDGE BARNES: What is the program for tomorrow? What do you propose right now?

MR. THURMAN: We propose to recess for the rest of the week.

JUDGE BARNES: Do you want to take a chance on the sales figures, a record without them?

MR. THURMAN: Three people involved with sales figures the rest of this week: Glazier, Crescenti and Josephian.

If we can't work out a stipulation, then we will reschedule those people to come in.

JUDGE BARNES: For next week?

MR. THURMAN: Yes.

JUDGE BARNES: I will certainly stipulate as to Josephian, that he is of no more consequence than Mr. Kimerling.

Why don't we get a stipulation on Mr. Josephian and then why can't you call Mr. Glazier and Mr. Crescenti tomorrow? Can you move them up, even Mr. Lenhart? Three witnesses tomorrow?

MR. NICKEL: Your Honor, Mr. Crescenti's attorney is out of town. He won't be back until tomorrow. Mr. Crescenti can't be called tomorrow.

JUDGE BARNES: How about Mr. Kuhn or Mr. Lenhart?

MR. THURMAN: I don't know that we will call Mr. Lenhart.

JUDGE BARNES: Why, are you going to cancel Mr. Lenhart?

MR. THURMAN: Yes.

JUDGE BARNES: Can we have a hearing on Thursday, May, and take Mr. Glazier and Mr. Crescenti and Mr. Kuhn?

MR. THURMAN: Yes.

Mr. Kuhn, of course, is a medical and he would fit just as well in the following week, but we can move him up.

JUDGE BARNES: Can you move all three of them into the following week?

MR. THURMAN: Yes; I think we can fit them into the following week. They will be very short witnesses unless we go through -- of course, if we got Mr. Glazier in, we would go through on the Papercraft questions on him plus his sales.

We would go through who is in the market and what percentage they would account for.

MR. TOPKIS: Your Honor, couldn't we bring some witnesses for next week into this week?

JUDGE BARNES: I am wondering about that.

MR. TOPKIS: How many of them are going to wind up being dropped?

MR. THURMAN: To be perfectly frank with Your Honor, I thought we were doing Mr. Topkis a favor. Certainly, it

would be better to skip some days when he could be in New York than to have short days.

JUDGE BARNES: I think Mr. Topkis wanted an expedited trial and go straight through and not have an adjournment like this for four days that wasn't planned. There is no point in keeping everybody sitting here if we don't have anything to do.

I would suggest that we take the witness this afternoon; that for the rest of the week you make up your mind how you are going to prove your sales figures, whether or not you can get a stipulation, what you are going to do about census, and be prepared to go next Monday morning through to the conclusion of your case, including your sales figures and your medical market.

Don't come in next week about next Thursday and say, well, we don't know what we are going to do or we will call more. You find out during these remaining four days whether or not you are going to get a stipulation. You have your statement in here. If you can't get a stipulation, get your subpoenas out. We are going to have no more adjournment commencing next Monday. We are going through.

I expect you to have witnesses here so that we can complete the case in chief. If you decide to call Mr. Glazier, Mr. Crescenti and Mr. Josephian, schedule them for next week, move Mr. Kuhn down to next week, and tell me next Monday how

you intend to get your sales figures in both markets. I think we have waited long enough to find out.

MR. TOPKIS: Your Honor, could we use a little bit of time this week? I would very much welcome -- let me say that I gather that the Complaint Counsel's case as to gases is at an end with the exception of some information on sales data to come possibly from Big Three and Liquid Carbonic. In view of that fact, if their part of the case is at an end, I would welcome an opportunity to argue a motion to dismiss. I think it might serve not only the traditional function of a motion to dismiss but Your Honor mentioned that there weren't any opening statements.

I would like to give you an idea of how the evidence stacks up so far as we are concerned as it stands at the close of the Government's case and perhaps Your Honor could indicate any areas of differences you have or interest or whatever.

I most particularly would like to know what counsel supporting the complaint believe they have established here.

JUDGE BARNES: When would you like to do that? Tomorrow morning or later on?

MR. TOPKIS: Any time you say, Your Honor. A couple of hours to prepare is all I would like. Tomorrow morning will be find.

JUDGE BARNES: We could do that tomorrow morning,

meeting at 10 o'clock. We could clean up the remainder of the documents, if we need to do that, this afternoon or tomorrow morning.

MR. THURMAN: I would be willing to argue. I don't think it is appropriate at this time without a stipulation as to sales. Certainly if Mr. Topkis will concede that AIRCO is not a toehold and that concentration is high --

MR. TOPKIS: I stipulate that AIRCO is nobody's toehold.

MR. THURMAN: If concentration is high, Ithink we could argue it even though our case is not complete.

MR. TOPKIS: I will not stipulate that concentration is high. I will stipulate seven or eight companies seem to account for the bulk of the sales on a nation-wide basis.

MR. THURMAN: That sounds good to me.

JUDGE BARNES: Why do we have a trial here? Why could we not have stipulated all the facts?

MR. THURMAN: We certainly have some more documents to go in. With those caveats, I would be willing to argue.

JUDGE BARNES: Will your gases case be completed with the three sales figures here, Big Three, Liquid Carbonic and Pacific Oxygen?

MR. THURMAN: And documents that we have.

It appears to me it is a waste of time to argue one portion of the complaint should be dismissed without arguing

the whole complaint.

JUDGE BARNES: I think it might be premature for a motion to dismiss but it might be helpful to get some idea of where we are going and where we have been.

After the motion to dismiss, I think you should complete your full case.

MR. THURMAN: That is our feeling, too.

JUDGE BARNES: Let us adjourn.

What time is your witness going to be in?

MR. THURMAN: Do you want to talk to the witness before he takes the stand?

MR. TOPKIS: I would welcome the opportunity. I think it might make my questions shorter if I did.

MR. THURMAN: I would say two-thirty for the witness to take the stand. I don't know how much time you need.

MR. TOPKIS: A half hour, I am sure, would be more than adequate.

MR. THURMAN: All right.

JUDGE BARNES: We will adjourn until two-thirty. Perhaps at the time you will have more ideas on what we are going to do.

(Whereupon, at 12:00 noon, a recess was taken until 2:30 p.m., this day.)

AFTERNOON SESSION

2:27 p.m.

JUDGE BARNES: Are you ready to proceed, Mr. Youngwood?

MR. YOUNGWOOD: Yes, Your Honor.

Your Honor, the complaint counsel had initially requested that a subpoena be served upon John Gallagher, the Chairman of the Board of Chemetron. The subpoena that was issued.

We are calling Thomas Young Cunningham to the stand as a substitute witness for John Gallagher, pursuant to a discussion had earlier this morning in that regard.

JUDGE BARNES: Mr. Youngwood, I believe in this instance you should have a subpoena made out for your new witness so you can pay him. Have your secretary type one up.

MR. YOUNGWOOD: All right, Your Honor, we will.

JUDGE BARNES: And I will issue it. He can receive it here today, and then you can take it back from him, and then that way he can be paid.

MR. YOUNGWOOD: All right. We will attend to that as soon as this is over.

Complaint counsel calls Thomas Cunningham to the stand, please.

JUDGE BARNES: Mr. Cunningham, raise your right hand, please, sir.

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THOMAS E. CUNNINGHAM was thereupon called as a witness for the Commission and, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By Mr. Youngwood:

Q Please state your name and address for the record.

A Thomas E. Cunningham, 413 Beech Drive, Glenview, Illinois.

Q What is your present position?

A I am President of the Industrial Gas Division of Chemetron Corporation.

Q How long have you held that position, Mr. Cunningham?

A Approximately three years.

Q What are your duties in that position?

A To oversee the distribution, production, and the sale of industrial gases.

Q What position did you hold prior to that position?

A I was a management training consultant within Chemetron Corporation.

Q And how long did you hold that position?

A One year.

Q How long have you been employed by Chemetron?

A About 25-1/2 years.

Q Will you tell us, please, what products Chemetron manufactures and sells?

A Generally speaking we sell industrial gases, welding rods, electrodes, hard gas, fittings, meat processing equipment, medical gases, and other equipment. That is chemicals, colors, pigments, and various other items I can't think of right offhand.

Q What group is responsible for the sale of industrial gases?

A The gases and Related Products Group of Chemetron.

Q What gases are produced by the Gases and Related Products Group?

A Oxygen, nitrogen, argon, hydrogen, ascetylene, CO_2, I guess that is about it.

Q What was ---

MR. TOPKIS: I am sorry, could I have the last question and answer read back, please, Your Honor?

JUDGE BARNES: Yes, read it back, please.

(The record was read by the reporter.)

MR. TOPKIS: Fine; thank you.

By Mr. Youngwood:

Q What gases are marketed by Gases and Related Products Group?

A All of those gases that are produced, plus helium, cyclepropane -- well, not in that, cyclopropane, nitrous-oxide, some compounded fuel gas, and that would about cover it.

Q Would you tell us, please, how you define industrial gas?

A Well, I would guess I would have to say those kinds of gases basically used by industry.

Q Are you familiar with the names of other companies producing and marketing the gases that you have just mentioned?

A Yes, I am.

Q In the United States?

A Yes.

Q What is the basis for your familiarity?

A Competing in the marketplace, and knowing who the manufacturers are.

Q Will you name the companies, please?

A Well, there is Linde Division of Union Carbide, Air Products, Airco, ourselves, Big Three, Liquid Carbonic, Liquid Air, let's see, there is Northern Gases, Burdett of Cleveland, Burdett of Norristown, National Welder Supply, Alabama Oxygen and Southern Cryogenics, Pacific Oxygen. I guess that is about it.

Q Did Selox?

A Selox of Chattanooga, yes.

Q Mr. Cunningham based on your experience in the industry, will you estimate, please, the percentage of 1972 value of shipments FOB plant accounted for by the companies you have just mentioned?

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MR. TOPKIS: Objection.

By Mr. Youngwood:

Q This is in the industrial gas industry?

A I really couldn't answer that question, I couldn't answer that. I just don't know.

Q Mr. Cunningham, do you have an opinion as to the percentage of these shipments which are accounted for by the companies you have just mentioned?

MR. TOPKIS: The witness just answered that question, Your Honor.

JUDGE BARNES: I think it is a different question. The first was his own sales figures.

MR. TOPKIS: No, no; total.

JUDGE BARNES: Please read the previous question.

(The record was read by the reporter.)

MR. TOPKIS: That same question is now being put to him, except now instead of being asked the fact, he is now being asked his opinion.

JUDGE BARNES: All right, read the last question then.

(The record was read by the reporter.)

JUDGE BARNES: All right, you may answer the question. Do you have an opinion?

THE WITNESS: In dollars, no. Percent, I would guess 97, 98 percent.

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By Mr. Youngwood:

Q Who are your top three competitors in the production and in marketing of industrial gas?

MR. TOFKIS: Objection, Your Honor.

MR. YOUNGWOOD: I will withdraw that.

By Mr. Youngwood:

Q Who, in your opinion, are the top three competitors in the production and marketing of industrial gas?

MR. TOFKIS: Objection, Your Honor.

JUDGE BARNES: What does "top three" mean? Do you mean largest or most active?

MR. YOUNGWOOD: The largest in terms of sales.

MR. TOFKIS: Well, I still object, Your Honor, unless there is a showing that these companies compete across the country. Up to now the record is you can't sell this stuff more than two or three hundred miles from where you product it.

JUDGE BARNES: Let's have a foundation laid.

MR. TOFKIS: With the exception of helium ---

JUDGE BARNES: Does Chemetron sell across the United States?

THE WITNESS: No, sir, Your Honor, they do not.

JUDGE BARNES: What areas do you not sell in?

THE WITNESS: We do not sell in the Pacific Northwest, Northern California, Arizona; we have very small minor operations in New Mexico.

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By Mr. Youngwood:

Q In the areas in which you compete, will you give us your opinion of the names of your top three competitors, in terms of the dollar value of their shipments of industrial gas?

MR. TOPKIS: Objection, Your Honor. There should at least be the preliminary question, are the same three companies your top competitors everywhere, or do your top competitors vary from location to location.

JUDGE BARNES: I think he is asking for a general across-the-board answer, if you can give it.

Can you name your three largest competitors in the ares in which you operate?

THE WITNESS: Yes, sir. They would be the Linde Division of Union Carbide, Air Products, and Airco.

By Mr. Youngwood:

Q Which companies would be the following four companies in that same line of questioning?

MR. TOPKIS: Same objection, Your Honor; I take it the same ruling.

JUDGE BARNES: All right, can you name the next four?

THE WITNESS: I would say they are Big Three, Liquid Carbonic, Liquid Air and probably Burdett of Cleveland.

By Mr. Youngwood:

Q In what areas of the country are industrial gases

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marketed by Chemetron?

A Everyplace except the Pacific Northwest, Northern California, Arizona, and we have a very minor operation in New Mexico.

Q In what areas of the country are industrial gases produced by Chemetron?

A In everyone of the areas we market, with the exception of Southern California and Florida.

Q Mr. Cunningham, you have named seven competitors with which you compete in the marketing and production of industrial gases. Where would you say that Chemetron fits among those seven?

What is your opinion as to the overall ranging of Chemetron in the marketing of industrial gases in the United States?

MR. TOPKIS: This question, I take it, asks the witness to tell us his judgment as to comparative sales of these companies. I object to it on the ground that his judgment is not the best evidence.

JUDGE BARNES: Well, it is not the best evidence, but I will permit him to put his estimation in the record.

THE WITNESS: I would say we range fourth.

By Mr. Youngwood:

Q Mr. Cunningham, do each of your major competitors produce and market air separation gases?

A To my knowledge they do.

Q Will you describe for us, please, the meaning of the term "air separation gases"?

A Air separation gases would be those which are taken from the air for us, primarily oxygen, nitrogen and argon. There are other rare gases that are sometimes taken from the air. We do not have any of that type of operation.

Q What percentage of the value of shipments by Chemetron of industrial gases in 1972, would you say, was accounted for by valuable shipments of air separation gases?

A I am sorry. I don't understand that. Would you rephrase it, please?

Q What percentage of your total value of shipments of industrial gases was accounted for by air separation gases, in 1972?

A Oh, I guess about 65 percent.

Q Earlier you stated that Chemetron marketed certain gases that it did not produce. Can you tell us, please, the reason that it has adopted such policy?

A Well, approximately 50 percent of our business is done through a network of distributors. And what we offer to these distributors is a complete range of the industrial gases. Some of the gases that we purchase are also served to direct user accounts. It is kind of this total package concept that has led us down that road where we do not have our own production capability.

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Q Do your competitors also market the total package to which you refer?

A To the best of my knowledge.

Q What was the United States net value of shipments FOB plant of industrial gases produced and marketed by Chemetron in 1972?

A Approximately $80 million.

Q Are there any trade associations related to the production and marketing of industrial gases?

MR. TOPKIS: If Your Honor please, not the CGA, IOMA story again. We have heard that before. We will stipulate they belong to every trade association in sight.

MR. YOUNGWOOD: If Mr. Topkis will also stipulate to my question - -

MR. TOPKIS: CGA and IOMA.

THE WITNESS: That is correct.

MR. YOUNGWOOD: Okay, thank you.

MR. TOPKIS: And it is international; we will even give you that.

By Mr. Youngwood:

Q In 1972 and 1973, please describe the balance between supply and demand of industrial gases in the United States?

JUDGE BARNES: In your market area.

THE WITNESS: In 1972 most products were readily available. Towards the summer of '73 and thereafter, they

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became pretty tight in various individual markets, primarily because of power interruptions as we start to get into the hot summer, expanded use of product by customers, and relatively since they have been on what I would call the short side.

By Mr. Youngwood:

Q By reason of your experience and dealings with others in the industry, do you have knowledge of the overall performance of the industrial gas industry since 1970 in the following manner: Sales growth, price charged for given volume of gas and new uses?

MR. TOPKIS: And what was the last?

JUDGE BARNES: And new uses.

MR. TOPKIS: New uses, oh.

THE WITNESS: Yes, I do.

By Mr. Youngwood:

Q Will you give us, please, your opinion, and the knowledge that you do have in the area of sales growth?

A The sales volumes have been growing substantially. Naturally, they vary by each individual industrial gas, but generally they are in that upward trend.

Q What is the trend with respect to a price charged for a given volume of gas?

A That has been increasing.

Q Have new uses for industrial gases come into being?

A Yes, there have. They are becoming prominent, for

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example, oxygen. And in sewage treatment in certain areas where air pollution is involved, nitrogen and hydrogen have been increasing because of in the past many users have had their own generators that produce nitrogen from natural gas or hydrogen.

These users are rapidly disappearing because of the energy crunch and more and more companies are turning towards cryogenic produced industrial gases.

In addition, I think you are going to see more, for example, nitrogen used in food freezing.

Other industrial companies who have had other sources of industrial gases are turning more and more to the manufacturers.

Q What is your prognosis for the future of the industry in the areas of sales growth and the prices to be charged for a given volume of gas?

MR. TOPKIS: Objection, Your Honor.

JUDGE BARNES: What is his prognosis?

MR. YOUNGWOOD: What is his opinion, based on the many years that he has been in the industry with respect to possible sales growth in the future and the prices to be charged for a given volume of gas, yes. How does he see the industry progressing; does he see this as an industry in which the sales will continue to grow; does he see it as an industry in which the prices will remain stable; will they

drop; will they increase?

JUDGE BARNES: Can you give us your business judgment on that?

THE WITNESS: Yes, I can, Your Honor.

I anticipate that the volumes of industrial gases will continue to grow at their present rate, or perhaps even greater. I anticipate that the unit ceiling prices will continue to increase, because of increased cost of distribution manpower and electricity.

By Mr. Youngwood:

Q Mr. Cunningham, a short time ago you described balance between supply and demand of industrial gases in the United States.

Would you say Chemetron is presently selling its industrial gasas at capacity, near capacity, or at a lesser percentage of capacity?

A I could only answer that question by talking about the individual gases. I don't think I could give you a generic situation.

Q Is Chemetron presently selling its air separation gases at capacity?

A Yes, we are at capacity.

Q And for how long have you been at capacity?

A Since about a year ago, this time.

MR. YOUNGWOOD: Your Honor, may we have about a

five-minute recess, please?

JUDGE BARNES: All right.

We will take a five-minute recess.

MR. YOUNGWOOD: Thank you.

(Brief recess.)

MR. YOUNGWOOD: Your Honor, we have no further questions.

JUDGE BARNES: Mr. Topkis.

MR. TOPKIS: If Your Honor please.

CROSS EXAMINATION

By Mr. Topkis:

Q Mr. Cunningham, first just a little tying up of a few loose ends. I understood you to say that your company produces carbon dioxide and also sells it. Right, sir?

A That is correct.

Q You sell a lot more than you produce?

A You are getting me into an area ---That is not handled within my Division.

Q In your company the Industrial Gases Division does not handle carbon dioxide, is that correct?

A That is basically correct.

Q So you have no responsibility for its production, its distribution or its sales, is that correct?

A That is correct, basically.

Q It is a totally separate division?

A Yes, sir.

Q Does it have a totally separate name?

A It is called Cardox Division.

Q Cardox, C-a-r-d-o-x?

A That is correct.

Q What product does it produce and sell?

A The Cardox Division?

Q Yes, sir.

A It produces and sells CO_2, dry ice, and some fire-related equipment.

Q Now, did you include in the figures that you gave us the sales of the Cardox Division, in that $60 million figure?

A That included the sales of CO_2 portion of the Cardox Division, yes, sir.

Q Okay, fine. Does your company produce and sell compressed air?

A To a limited extent, yes.

Q Compressed air has a variety of industrial uses, does it not, sir?

A Yes, sir.

Q Your company just doesn't happen to be engaged very heavily in it, is that correct?

A That is correct.

Q There are companies, however, which are?

A To my knowledge, yes.

Q Now, you told us, I think, after ticking off a number of companies, that you guess that they would amount for 97 to 98 percent of the total sales of industrial gases in the United States. Do you remember that testimony?

A Yes, I do.

Q Were you including CO_2?

A Yes, I believe I was.

Q Would it be accurate to say that the guess got guessier and guessier as you got closer and closer to CO_2?

A Yes, I am not that familiar --

Q MR. YOUNGWOOD: Objection. I am not sure what the question means.

JUDGE BARNES: I am not sure I do, either.

MR. TOPKIS: I will try rephrasing it, if I may, Your Honor.

JUDGE BARNES: All right.

By Mr. Topkis:

Q Did your answer become more of a guess as you incorporated CO_2?

A I am not that thoroughly familiar with the CO_2 market.

Q Okay, sir. Now these compnanies who produce and sell compressed air, can you name some of them?

A Well, I think one of the bigger ones would be Liquid Air, if I am not mistaken.

Q Anyone else?

A No, I just would not know, you know, that intimately on that particular product.

Q Okay. Is compressed air within the Industrial Gases Division of your Company?

A Yes, it is

Q Not in Cardox?

A No, it is not.

Q Okay. Now you were asked to name your three largest competitors, and you named Linde, Air Products and Airco. Do you remember that?

A Yes, I do.

Q Now that is viewing them on a U.S.-wide scale, is that right?

A Yes, sir.

Q Your biggest competitor in the Gulf area would be Big Three, wouldn't it?

A In the Houston area, yes, sir.

Q Yes. And you mentioned the Burdette Company of Cleveland. Would they creep into the ranks of the top three in any area at all?

A No, I do not believe so.

Q Well, now, speaking of the Houston area, sir, can you tell us what proportion of industrial gases sales Big Three accounts for in that area?

A Not specifically, but I could tell you it is one great big share of it.

Q And in that area, sir, the companies that you named as your three largest competitors, namely, Linde, Air Products and Airco, they account for a much diminished share, right?

A Yes, that is correct.

Q Okay. Would you say that Big Three accounts for more than 50 percent in the immediate Houston vicinity?

A I would have to say yes.

Q Now you said also that after the top three, Linde, Air Products and Airco, there would come four more: Big Three, Liquid Carbonic, Liquid Air and Burdett of Cleveland. Do you recall that testimony, sir?

A Yes, sir.

Q Would I be right in saying that depending on the areas, if you moved from area to area, region to region around the United States, the ranking of the top three would change?

A I think that is a fair statement.

Q And sometimes one or more of the bottom four might creep into the top three?

A Yes.

Q Okay. Now, again going back to your sales figures, sir, did you include in your sales of industrial gases nitrous oxide?

A No.

Q You don't regard anitrous oxide as an industrial gas?

A No, sir, that we would regard as a medical gas.

Q Medical gas. Okay. And how about cyclo-propane?

A That would also be a medical gas.

Q How about propane?

A No, we would not include that -- Well, except to the fact

that propane as one of the fuel gases that we sell is primarily propane with an additive to it. It is not large but propane itself, no, I would not consider an industrial gas.

Q Propane is a fuel gas, isn't it, sir?

A That is correct.

Q Its principal use is for fuel.

A Fuel.

Q And do you sell it?

A Only to the extent that it is in the form that I mentioned that we use it as a fuel gas in cylinders, it is a compounded fuel gas of the type not very large in our business.

Q With some special additive?

A Yes.

Q I see. There are companies, however, which do a tremendous volume in propane?

A That is correct.

Q And other such fuel gasses.

A That is correct.

Q Can you name some of them for me?

A Oh, boy. Well, I think a lot of -- let's see. Stop for a minute. Oh, I think Phillips Petroleum is one. My mind draws a blank at the moment.

Q Okay. All right, I don't want to press you. There are, however, many companies that are much larger than yours in the propane business?

A Oh, by all means.

Q And are there any other fuel gases? Acetylene, of course.

A Yes.

Q That is regularly regarded as an industrial gas?

A That is correct.

Q How about MAPP? Is that a familiar name to you?

A Yes, it is.

Q M-A-P-P. That is a familiar name to me.

Q That is a fuel gas?

A That is correct.

Q Do you sell it?

A No, we do not.

Q Do you sell something called Apache?

A No, we do not.

Q They are both fuel gases?

A That is correct.

Q And there are companies that sell a lot of those?

A Yes.

Q You testified that your net U.S. shipments f.o.b. plant of gases, industrial gases, which you produced and marketed in 1972, aggregated about $60 million?

A That is correct.

Q How did you derive that figure, sir?

A I don't want to probe into your business secrets, but--

A No, I can explain it. Generally what we do is take our

production at that particular location, times the average selling price of our nearest distribution point, and its approximation of value.

Q And that is what you did for all of your selling, all of your production resources?

A That is correct.

Q I see. Is that something that your company regularly does for its own purpose, of did you derive this figure in order to answer questions from Commission staff?

A That is supplied routinely to the Bureau of Census.

Q I see. So that it is a figure that you supply to the Bureau of Census, and you obtained it in the facts that you have just described, is that correct?

A That is correct.

Q Okay. Now, that is not the same as your invoice price for those products, is it?

A No, it is not.

Q Do you have any idea whether the difference between that figure and the total of your invoice figures would be greater or lesser, and by how much?

A I would be more by approximately $12 million.

Q Well, your sales volume would be more?

A We would consider sales would be about $12 million. Ten to $12 million more than that figure.

Q Of gases which you bought, produced, and marketed?

A No, in there would be some products that we buy.
Q Well, you buy a fair amount of industrial gases, don't you, sir?
A Yes. In some markets we do, yes.
Q Okay. You said, sir, that industry prices for industrial gases have been trending up the last few years, is that right?
A That is correct.
Q Now simultaneously power costs have been going up very fast, have they not?
A They certainly have.
Q And power is the major element in your cost picture, is it not?
A For air separation gases, yes.
Q Yes, and air separation bases account for the bulk of your sales?
A Correct.
Q Ahd the other items that you include in yhour costs, wages, plant maintenance and the like, they have all been trending up, too?
A That is correct.
Q Would you be able to tell us, in your judgment, of the industry price increases that you refer to be greater or less than, or approximately the same; roughly, however best you can approximate it, as the upward trend of power costs, wage costs and other related costs.

MR. YOUNGWOOD: Objection. Your Honor, I think we have gone well beyond the scope of our direct. I think Mr. Topkis is really attempting to determine the profitability the industry profitability in this particular area. We didn't touch upon that at all.

JUDGE BARNES: What did you intend to prove when you said selling prices had gone up in the industry? What did you intend to prove?

MR. YOUNGWOOD: We are attempting to show that in several specified areas that this is a growth industry. And we specified the areas in which we felt that it would be pertinent to --

JUDGE BARNES: Is inflationary real growth? Is inflationary selling price, a selling price that increases only to cover costs, is that growth? I believe this is what Mr. Topkis is driving at. I think it is proper.

MR.YOUNGWOOD: I would be concerned only that we not get too deeply into profitability, Your Honor.

JUDGE BARNES: Could we have the last question read back?

MR. TOPKIS: I can perhaps rephrase it more simply, Your Honor, than to trouble the reporter.

JUDGE BARNES: All right.

By Mr. Topkis:

Q Mr. Cunningham, this upward trending price level in your

industry that you refer to, has it been approximately the same as the inflationary trend of your supplies and your wage costs, and the like?

A No, it has not.

Q It hasn't kept up with inflation?

A Has not kept up with inflation.

Q All right, sir. Now, you said also that there are product shortages in some areas, and there have been for, oh, perhaps ten months or a year, overall.

A That is correct.

Q Your company is expanding to block up some of those shortages, are you not?

A That is correct.

Q You have announced a number of construction plans.

A We have.

Q And other companies in your field, your major competitors, for example, they too have announced construction plans?

A Yes, they have.

Q In recent years, Mr. Cunningham, have you had any opinion as to the likelihood that British Oxygen Corporation would decide to enter the industrial gases field in the United States?

MR. YOUNGWOOD: Objection, Your Honor.

Your Honor, we have heard any number of instances in which there have been attempts to go beyond the scope of direct, but I believe this goes just about as far as any we

have heard so far.

JUDGE BARNES: I think this is beyond the scope.

MR. TOPKIS: Of course it is, Your Honor. Of course it is. But we got the opinion from the man who operates a 35-ton outfit in Bessemer, Alabama this morning, and we got one the other day that another gentleman who operates another teapot operation. This man operates the 4th largest in the country, according to his testimony on direct.

I think it is valuable information for Your Honor to have. Needless to say, I have discussed it with him and I know the answer. And I assure Your Honor that it is my confident belief that so did Complaint Counsel, and that is the reason they didn't like the answers. But I think in the interest of a full record we could have this gentleman's answer to the question.

I could call him back from Chicago in my case again but what is the point?

MR. YOUNGWOOD: Your Honor, this company has been contacted, I don't know, six times during the lat four years, something like that, with respect to possible acquisition or joint venture, by BOC. I don't think there can be any real question. But I would say that there just can't be any doubt at all. We determined that in this particular instance we didn't see the necessity. The record is very clear as to how offidials at Chemtron must have felt that BOC would have been

a possible entrant. We didn't see the need to carry it any further.

JUDGE BARNES: Well, either you can see the need or you object to Mr. Topkis bringing it out now. And would you require him to bring Mr. Cunningham back at a later date to ask him the question.

MR. YOUNGWOOD: Only if he desires to, sir.

The answer to your question is that it is clearly beyond, it is our view it is clearly beyond the scope of the direct, and that it does not appear to us to be proper cross-examination.

JUDGE BARNES: Well, I am going to permit him to answer the question because it has been asked of several witnesses here and I think maybe Mr. Cunningham's view should be on the record also.

Would you repeat the question.

By Mr. Topkis.

Q Do you remember the question, sir?

A No, I don't.

Q All right, let me try it again.

In recent years have you expected British Oxygen Company to enter the United States in the industrial gases field?

A No, I have not.

Q Do you think that British Oxygen or any other foreign company, could enter the industrial gases field in the United

States?

A I don't believe so.

Q Can you tell us the reasons for that belief?

A Well, historically this industry has grown, or you ahve entered a market, one of two ways: One is to buy in, which I would say is buying of the smaller, independent type producers. The other way of getting in is to find a good sized pipeline account that would warrant your builing a plant, and then expanding that into the merchant marketplace.

In the former case there just aren't that many independents around any more, as compared to a few years ago. In fact, that is one of the ways we grew.

As far as the latter, those pipeline contractors are usually very extremely competitive, and in my opinion it would be extremely difficult for anybody outside of the United States to come into this market.

Q There has been mention of Burdett of Cleveland as an independent which might be acquired.

Would you think it would make sense for a foreign cmpaany to acquire Burdett of Cleveland, or does Burdett of Cleveland have some internal problems of which you are aware which would disqualify it for acquisition?

MR. YOUNGWOOD: Objection.

JUDGE BARNES: I think we are going way beyond the scope of direct here.

MR. TOPKIS: Okay. Well, I can show Your Honor the pertinence of this question with just two more, if I may. And I will consent to their being stricken if Your Honor disagrees with me, of course.

JUDGE BARNES: All right, proceed.

By Mr. Topkis:

Q Mr. Cunningham, yo know the Burdett plant of Joliet Illinois, and in fact you bid to construct and operate thi same plant for the company for which Burdett built it, is that correct?

A That is correct.

Q So that Burdett had to bid elow you in order to get the business, is that correct?

A That is correct.

Q Why did you stop bidding?

A Because I couldn't make any money.

MR. TOPKIS: Now, if that is not relevant evidence, Your Honor, I don't know what is.

JUDGE BARNES: No, I don't think it is relevant.

MR. TOPKIS: Okay.

JUDGE BARNES: I am going to strike those two questions about Burdett because we really don't know why Burdett got in the business, sir.

By Mr. Topkis:

Q In any event, Mr. Cunningham, coming back to the possibility,

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or lack of likelihood of BOC entering the American industrial gases business, did you ever make any price decision upwards or downwards that was in the slightest degree affected by the possibility that BOC might enter the American market?

MR. YOUNGWOOD: Your Honor, he has already indicated he considered nobody whatever. If he considered that nobody could enter the market, it must be obvious that he couldn't have considered -- Mr. Topkis' question must be obvious. There appears to me to be no purpose at all for carrying this line of questioning further.

MR. TOPKIS: I agree, Your Honor.

JUDGE BARNES: All right.

By Mr. Topkis:

Q Now, I would like to ask you, sir, what does it cost to build let's say a 250-ton air separation plant, and purchase the related equipment.

A Seven, eight million dollars.

Q Chemtron buys some of its products, some of its gases, you told us, is that correct?

A That is correct.

Q Do you buy some of the gases that you sell from McLouth?

A We do.

Q That is from a plant that McLouth still owns, is that right?

A That is right.

Q And am I right in suggesting that you also buy industrial gases from the Ford Motor Company, produced by an air separation plant which Ford owns?

A Intermittently.

Q On a spotty basis.

A Yes, sir.

Q When it is available, Ford markets it?

A I am not sure Ford markets it, but --

Q Sells it to you.

A Y es, yes.

Q And you buy hydrogen from Champion Paper? In Houston, Texas. Don't you?

A That is correct.

Q And Champion in Houston has its own hydrogen plant?

A That is correct.

Q And you buy also from P.P.G.?

A That is correct.

Q P.P.G. has also a hydrogen plant of its own?

A That is correct.

Q Which it built to supply its own needs, and you take the overages, is that right?

A That is correct.

Q And do you have the same kind of arrangement with Hooker Chemical outside of Buffalo?

A That is correct.

Q You buy hydrogen from them.

A That is correct.

Q Hydrogen is an industrial gas, as you described the term.

A That is correct.

Q Now, carbon dioxide is typically generated as a byproduct of some other process, is that right?

A Yes, to my knowledge.

Q And does Cardox buy carbon dioxide from companies which are operating their own processes, and have carbon dioxide available as a byproduct?

A Yes, they do.

Q Just a second, please, Your Honor.

When you gave us that 97, 98 pecent figure do you remember the total sales accounted for by the companies that had been named in the industrial gases field, you weren't including in your calculation there production by companies which produce for their own use, such as U.S. Steel or Ford or McLouth?

A No, I was not.

Q And you don't even include what they sold you?

A No, I do not.

Q Okay, sir. Now, just one other thing, Mr. Cunningham. You never laid eyes on me or any of my colleagues before an hour ago, did you?

A No.

MR. TOPKIS: Okay, thank you, sir.

MR. WOLLEN: We have no questions, Your Honor.

REDIRECT EXAMINATION

By Mr. Youngwood:

Q Mr. Cunningham, is the Cardox Division within the Gases and Related Products group?

A It is.

Q Is it a successor to a company which was acquired by Chemtron at any time in the past?

A Cardox was a separate company acquired by Chemtron, or at least a portion of it, I should say.

Q Is that the reason that it is a separate division, for administrative convenience?

A No. Generally speaking it is historically within Chemtron the industrial gas is one aspect, and CO_2 was a different aspect, because of the type customers and markets they serve.

Q Does CO_2 compete with nitrogen in any particular manner?

A Yes, it can. Primarily in freezing. You know, they are both cold, they both can freeze, it depends on the end product, normally, and the customer's desire as to which product he would use.

Q Same customers would tend to use nitrogen and CO_2 in the freezing application that you have mentioned?

A Yes, they can.

Q You mentioned a net value of shipments of industrial gases

at $60 million for 1972 for Chemtron. Does this include medical oxygen?

A Yes, it does.

Q Does the $60 million include resales?

A Yes, it would. Not -- Well, I answered it two different ways. If you are talking about a pure buy and sell, just as it is, the answer is no. If it means where we buy some of those that we do talk about where we do physically work on it, you know, change it, purify it or something like that, yes, it would.

Q With respect to those that you buy and sell just as they are, can you tell us what your value of shipments of gases would be in 1972?

A Approximately $4 million, I would guess.

Q Excluding acetylene, what percentage of your company's net sales were accounted for by fuel gases?

I'm sorry. What percentage of their 1972 net sales of industrial gases were accounted for by fuel gases?

A Excluding acetylene? A very small portion.

Q Well, would we be talking about a percent as high as ten percent or are we talking about something which might be less than one percent?

A May I ask a question? What do you consider hydrogen, a fuel gas or not? I would not.

Q All right.

A Then I would say it would be less than 10 percent, excluding acetylene.

Q Would you say it is less than 5 percent?

A Yes.

Q Is it less than 2 percent?

A I would believe so, excluding acetylene.

Q Is it less than one percent?

A I would say in '72, yes.

Q All right. Is Chemtron, or was Chemtron, subject to the controls of the Cost of Living Council the last few years?

A It was.

MR. TOPKIS: Now I think we are outside of the scope of even direct or cross.

JUDGE BARNES: I think I know where he is going. What does this have to do with, Mr. Youngwood?

MR. YOUNGWOOD: Well, I am attempting to show that there may be a real good reason why the prices might not have quite kept up with the cost.

JUDGE BARNES: This was brought up on cross.

MR. YOUNGWOOD: Yes.

JUDGE BARNES: You may proceed.

THE WITNESS: Would you repeat the question, please.

MR. YOUNGWOOD: Would you read the question, please.

(Question and answers read by the reporter)

By Mr. Youngwood:

Q What was the maximum price increase permitted Chemtron under the Cost of Living price controls?

A There was one permitted in February of this year but I can't give you the percentage offhand.

Q Do you attribute this to be a reason why the prices have not kept up with what you call the increased costs?

MR. TOPKIS: Objection, Your Honor. If a man is forbidden to raise his prices, which I take it is what the prior testimony has elicited from this gentleman, I take it he is forbidden to raise prices and that is it. What more can you ask?

MR. YOUNGWOOD: I am not sure exactly what Mr. Topkis is saying. "A" is "A" is "A"? I think probably Mr. Cunningham can respond somewhat more definitively.

JUDGE BARNES: All right, you may answer that question, Mr. Cunningham.

THE WITNESS: Would you please repeat it so I make sure I answer properly?

MR. YOUNGWOOD: Will you read the question back, please.

(Question read)

THE WITNESS: Yes, I do.

By Mr. Youngwood:

Q Mr. Cunningham, before Liquid Air entered the United States market, did you think they could enter?

MR. TOPKIS: Could I have that question read back? I'm sorry, I didn't understand it.

(Question read)

THE WITNESS: Never really thought much about it, to be honest.

By Mr. Youngwood:

Q Were you aware of the contacts made by the British Oxygen Company with Chemetron in the years from 1970 to date?

A Personally, no.

MR. TOPKIS: Objection.

I think I might mention, since counsel framed the question that way, all the inferences now were that the contracts wer by Chemtron with British Oxygen.

By Mr. Youngwood:

Q When youtestified that you didn't consieer that the British Oxygen Company would enter the United States market, were you focusing your attention upon a national entry or entry on a national basis, or were you focusing your attention on an entry on a regional basis?

A On a national basis.

Q Would your answer be the same were we to focus upon a regional basis?

A No.

Q Do you believe that the British Oxygen Company could have purchased an independent or a regional company in the industrial

gas industry in the United States?

A Yes.

Q All right. You stated that you buy from McLouth, Pittsburgh Plate Glass, Champion Paper, and Hooker Chemical, and Ford. How much would you say you buy from them a year?

JUDGE BARNES: Industrial gas?

By Mr. Youngwood:

Q In industrial gases.

A I couldn't give you a figure offhand.

Q Can you give me a very rough estimate, percentagewise?

MR. TOPKINS: Percent of what?

MR. YOUNGWOOD: Percentage of your total value of shipments.

A Oh. 2, 3 percent, maybe, maximum.

By Mr. Youngwood:

Q Do you consider the companies I have just mentioned, McCullouth, Pittsburgh Glass, Champion Paper, Hooker Chmiical, Ford and possibly U.S. Steel to be in the industrial gas business?

MR. TOPKINS: Objection.

THE WITNESS: No, I do not.

MR. TOPKIS: I move to strike the answer, if it got recorded.

JUDGE BARNES: Yes, let's have the objection first. STrike the answer. What is your objection?

MR. TOPKIS: The answer calls for the witness to characterize somebody's behavior.

JUDGE BARNES: Do you consider these companies to be your competitor, Mr. Cunningham?

THE WITNESS: No, I do not.

JUDGE BARNES: Let me ask you, you say your purchases from these companies would account for about 3 percent of your sales?

THE WITNESS: At maximum.

JUDGE BARNES: At maximum. What percentage of these purchases are hydrogen?

THE WITNESS: That is a tough one. All but Ford and McLouth are hydrogen.

JUDGE BARNES: Can you give us a dollar volume of purchases from McLouth and Ford, in 1972?

THE WITNESS: Not offhand, sir.

In McLouth I am going to guess maybe 20, 25 thousand dollars a month. But on a very intermittent basis. We had a take-or-pay contract which they have not performed. Ford is strictly on a spot basis. It may be four or five loads here, four or five loads there, averaging not more than a thousand, maybe two thousand per month over that period of time.

JUDGE BARNES: I am going to ask you about medical gases. Your company does sell medical gases?

THE WITNESS: Our company does, yes, sir.

JUDGE BARNES: In your industrial gas division?

THE WITNESS: Yes and no. I have to answer it that way. We do sell to our distributors medical gases. We do not sell directly to the hospitals. That is handled by a medical Products Division not within our group.

JUDGE BARNES: Is it the same gas?

THE WITNESS: Yes, relatively.

JUDGE BARNES: Is it packaged differently for the medical trade?

THE WITNESS: If you are talking oxygen, yes, the packaging was considerably different. If you are talking nitrous oxide, that is the sold to our directors, packaged the same way it would be to a hospital, but different than other gases. If I may explain here, Your Honor, there is a greater upkeep of cylinders, there is different types of valves, the maintenance on that type of thing going into what we call the medical far greater than what we experience in the industrial side of the business.

JUDGE BARNES: Doyou get different selling prices involved?

THE WITNESS: Yes, there is. I chuckle because in most cases it sells cheaper to the hospitals than it does to the industrial accounts.

JUDGE BARNES: Although there is more packaging cost?

THE WITNESS: (Nods head indicating yes)

[illegible]

BY MR. RIGHTS:

Q You just testified, Mr. Cunningham, that you buy spot purchases from Ford.

A That is correct.

Q Do other companies purchase from Ford as well on a spot basis, to your knowledge?

A I really don't know.

Q You don't have any exclusive arrangement with Ford?

A No.

Q They're perfectly free to purchase anything they want?

A That is correct.

Q You said that DOE could have purchased an independent or regional gas producer. Do you remember that testimony?

A Yes.

Q I assume you could use the same statement about anybody

MR. YOUNGWOOD: Yes, Your Honor, would they, in your opinion, believe that they might be more successful

[illegible]

[illegible]: Mr. Would you repeat it, please?

JUDGE BARNES: How's he going to testify?

MR. SUTTON: Your Honor, I will note it only for Mr. Youngmoon. I will stipulate Boston Gaspar Company probably do a better job of appraising equipment than any Union Manhattan Bank or any other company that might have no experience in industrial cases.

MR. YOUNGMOON: We have no further questions.

JUDGE BARNES: Mr. Youngmoon, don't you think I could later British Gaspar would be more capable without going through a line of questioning like that?

MR. YOUNGMOON: Your Honor, if there was a reason for Mr. Sophis to ask his question, and I am not sure that there was, then I think there probably might have been a reason for me to ask mine.

JUDGE BARNES: Do you have any other questions for Mr. Cunningham?

MR. YOUNGMOON:

JUDGE BARNES: All right, Mr. Cunningham, you are excused. Thank you very much.

(Witness excused.)

JUDGE BARNES: Off the record.

(Discussion off the record)

JUDGE BARNES: We will take a 5-minute recess.

JUDGE DARNES: Back to go on the record now?

MR. THURMAN: Yes, Your Honor.

JUDGE DARNES: Have you arrived at a plan of action for tomorrow, or the rest of the week?

MR. THURMAN: Our plan of action was always for the rest of the week.

I would like to ask if maybe at this time, though, I believe my friend, Mr. Dubin, said that he was not prepared to stipulate to the form of medical sales. Maybe this is something that should be worked out between Mr. Dubin and myself, not on the record.

My question is what would he be prepared to stipulate, and I don't know whether he wants to answer now or we work it out.

MR. DUBIN: I will be delighted to meet with you any time and let's see what progress we can make and we will report to Your Honor.

JUDGE DARNES: Well, you don't need to report to me. This is on medical products?

MR. THURMAN: Yes, this is on medical products. Of course, we are going to try to work out some stipulations on the others, but if not, we will have to be prepared to call witnesses, and I believe Your Honor said continuous from Monday on.

JUDGE DARNES: That is right.

MR. THURMAN: Maybe I was out of order bringing this up on the record. Maybe Mr. Topkis and I can work it out by ourselves. But the way I understood it, we are to go forward on continuously, and if I can't work out stipulations it is my burden to prove it.

JUDGE HARRIS: Call the witnesses; if you have to have the witnesses, call the witnesses.

MR. THURMAN: Yes. Oh, which I am sure Mr. Topkis along with us would like to work out something, if we can. And this is something I assume must be private, and we don't discuss it at this time. I am probably out of line bringing it up at this time.

JUDGE HARRIS: And I guess we will have a new schedule of witness for next week.

MR. TOPKIS: Is there no hope of getting anybody in this week?

MR. THURMAN: Certainly we can have Keen in on Friday, and might be able to work in some more on Friday. I didn't think you wanted to come in.

MR. TOPKIS: I would rather not come in Friday afternoon for one witness, that is certainly true, Your Honor.

MR. THURMAN: I mean, we can work somebody in Friday morning, and Thursday afternoon. I honestly thought next week would be best for both parties. But if you want to work somebody in later in the week, I would be glad to do it.

JUDGE [illegible]: Well, I would prefer not to have [illegible] and have Mr. Tepkis and Mr. Ivan come down from [illegible] when it looks like our schedule [illegible] so long as they [illegible] much day. Certainly you can work in whatever you want to call [illegible] if anybody.

MR. TURNER: We don't bring people in next week. That is why I thought we could be ending up the same way, [illegible] and be given them off here. We could spread this out. I didn't have to cancel any of these people; I could call them. I thought I was doing the court a favor, and Mr. Tepkis, because one of them I don't need.

JUDGE [illegible]: The ones you don't need we don't want you to call.

MR. TURNER: Right.

JUDGE [illegible]: But you still may have to call Big Three, Liquid Carbonic and Pacific Oxygen; is that correct?

MR. TURNER: Yes, and I will be glad to rearrange. I probably was premature before checking with this court on cancelling them with the idea I thought we could work out a stipulation of cancelling because it is being closed.

I think I could reschedule them at the end of this week. I didn't see any need for them. I could work in next week then we are here anyway and make a full day's schedule.

JUDGE [illegible]: Work them in next week and also do

prepared to tell me Friday morning how many medical products people you are going to call, who they are, in fact, you should get responses to me, I guess, by the end of this week, isn't that?

MR. THURMAN: Yes, I think so better.

JUDGE BARNES: So, you should know by Friday morning --

MR. THURMAN: Yes.

JUDGE BARNES: -- what you are going to do.

MR. THURMAN: If it pour honor likes, I would be glad to make an opening statement for the rest of our case. I didn't think it would be necessary to start with, but we will have the rest of our case planned out; I think we know now that -- it all depends on stipulations.

I am sure that we would be able to stipulate or not stipulate by Friday, or my friend, Mr. Topkis; if not, we will go from there and have a trial from there on.

JUDGE BARNES: Nice to hear you referring to Mr. Topkis as your friend.

MR. THURMAN: Well, he has been referring to me as 'my friend,' and I like Mr. Topkis.

MR. TOPKIS: I hope we make friends in litigation, Your Honor; hope I am lucky enough to.

JUDGE BARNES: Did you wish to make any type of motion or statement? Did you want to reserve time for that?

MR. TURNER: Well, I will be delighted to be guided by Your Honor's wishes. It seems to me that with the exception of the possibility of a stipulation, and I don't think that is really a problem one way or the other, we are going to have these sales figures on the industrial cases.

The industrial side of the case is done, that is, of complaint counsel's case in chief. It is now fresh in the recollections of all of us, and it occurred to me that possibly Your Honor might find it useful to hear from complaint counsel some indication of what they believe they have proved, and from us some comment on their case in chief, just as if not by way of a motion to dismiss, which perhaps is a little premature, then by way of a sharpening of the issues for the preparation of our case and for Your Honor's thinking.

But, of course, I don't want to thrust it upon Your Honor and do anything that does not seem to make sense to Your Honor.

JUDGE HARRIES: Well, it might be helpful to everyone to know your thinking now. But I would suggest that perhaps you are taking a little risk in pointing out maybe complaint counsel's shortcomings at this point, while their case is still going on.

But that is up to you. And in any event, I don't think it would be necessary for you to keep you down here. You can work it out perhaps Monday.

MR. [illegible]: Your Honor, also.

JUDGE [illegible]: And by that time perhaps the other three figures would have to be agreed on, and we will know by then.

So, I see no point of keeping you here tomorrow.

MR. TOPKIS: Well, we have to be here. I would be perfectly willing to meet with complaint counsel and iron out these stipulations, if Your Honor wants to help us tomorrow.

JUDGE [illegible]: I will be here tomorrow, and if we can meet tomorrow morning and at least go over the remainder of the exhibits.

MR. THURMAN: That is fine with us. We can meet at 10 o'clock. In fact, we can meet at 11 o'clock if you prefer.

MR. TOPKIS: That might be best, Your Honor. We could get together perhaps at 9 or 9:30 and see how much progress we could make to stipulating. I would like to know how we stand. I think we all earned that.

JUDGE [illegible]: Well, let's adjourn until 11 o'clock and at that point maybe at least get the remainder of complaint counsel's exhibits that have been identified.

And if you feel you should make a statement of 15, 20 minutes, half an hour, either side, I will be glad to hear you. But as I say, you may want to reconsider based on ---

MR. TOPKIS: I don't think it is that kind of case;

it is absolutely prior, as far as I am concerned.

MR. THOMAS: One thing I might say and this is not to be facetious. While we have not had the benefit of daily copy, I don't think that would hinder my argument. Certainly it would help to -- for the life of me, I don't understand why we don't have daily copies -- we cannot have daily copies, but that is beyond me.

JUDGE BARNES: I am going to send a memorandum to the Secretary's office and suggest that the next year's reporter's contract provide that if either party gets daily copy, the other get it also. I think it is a little unfair.

It is a little unfair to me, because I don't get daily copy.

MR. TOPKIS: Your Honor, I am sorry. I did not know that Your Honor didn't have it, and my friend did not. I think it is quite unfair that economics should decide who gets copies. I think it is outrageous. I will say quickly, however, I haven't looked at the transcript and will not do so before tomorrow morning.

JUDGE BARNES: I think it is only fair all sides should have it. I am going to send a memorandum to the Secretary's office that all sides should have it. I think it should be. It used to be if complaint counsel got it, respondent did not necessarily get it. But if respondent got it, complaint counsel got it.

MR. TOPKIS: I see.

JUDGE BARUCH: So they shifted the burden then on us to try this case.

MR. TOPKIS: Could I say that nothing is to my to want this matter disposed of as quickly as possible. And I would be delighted to skip the harassment and take it available to Your Honor. It is going to put a terrible burden on your Xerox machine, I am sure, and to complaint counsel, rather than have anyone wait until the end of this proceeding. When would copies normally be received?

JUDGE BARUCH: Ten days.

MR. TOPKIS: Well, there is no reason to wait 10 days and delay things 10 days.

JUDGE BARUCH: I will wait and let you do that.

MR. TOPKIS: I certainly would be very kindly disposed to do that.

MR. THORN: Your Honor, I might add at this point, just to make the record clear, our position on this, getting away from the daily transcripts, but the facts for an oral argument at this time, we are certainly not against arguing.

It would have to be, especially in light of Mr. Topkis' admission this morning that six or seven firms control most of the bulk of the market, and that Airco was not a "household."

I don't think anyone ever thought that was their

defense. I don't think they brought it up as a defense. But I want to be clear that our case is not closed. We are going to put in some census data.

MR. TURNER: It is ready to starter the other day to put in Census data and the objection was to one portion of Census data. And I stated on the record that this was a matter that Your Honor could take judicial notice of. The Commission has held that this is a matter you can take judicial notice of its reliability, and it is accepted in cases I am familiar with, the Auld Company, Pepsico in their application of Reingold and many cases before the Commission. So, there are many cases accepting it, taking judicial notice and accepting that as being reliable.

JUDGE HARRIS: I note in the Avnet case a witness was called.

MR. TURNER: Yes, but that has nothing to do, we were just saying this to explain a way. But you will see in the footnote this is a matter where they could take judicial notice. This happened to be my case. And certainly you need not call a witness to validate or establish reliability in Auld Company. We did not call one in Pepsico.

So from then on there is no need to call any official from Census. And we have not called and don't intend to call it in the future. So, that is why I believe Your

alms

MR. THURMAN: Yes, sir, I apologize, Your Honor, I have never done this in a case.

JUDGE BARNES: I feel it would be helpful to me.

MR. THURMAN: I think I would have been more than happy to. I hope you accept my apology. I just haven't done it in the past.

JUDGE BARNES: In many cases a trial brief was filed -- we didn't have trial briefs.

MR. THURMAN: Yes, I have asked to file trial briefs in the past which I didn't do.

JUDGE BARNES: That is correct.

MR. THURMAN: And I am sorry. I would have made an opening statement if Your Honor ---

JUDGE BARNES: Well, let's adjourn for the reporter's benefit until 11 o'clock in the morning.

(Whereupon, at 4:05 p.m. the hearing recessed, to reconvene at 11 a.m. Tuesday, May 14, 1974.)

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BEFORE THE

FEDERAL TRADE COMMISSION

IN THE MATTER

of

BRITISH OXYGEN COMPANY, LTD.,
BOC FINANCIAL CORPORATION,
BOC HOLDINGS, LTD.,
BRITISH OXYGEN INVESTMENTS, LTD.,
AIRCO, INC.

Docket No. 8955

Room 532, FTC Building,
6th & Pennsylvania Ave., N.W.,
Washington, D. C.,
Tuesday, May 14, 1974.

Met, pursuant to recess, at 11:00 a.m.

BEFORE:

ERNEST G. BARNES, Presiding Administrative Law Judge.

APPEARANCES:

E. KEITH THURMAN, GORDON YOUNGWOOD, DON PURCELL, DARYL NICKEL, RHETT KRULLA and JOHN HOAGLAND, on behalf of the Federal Trade Commission.

JAY H. TOPKIS, LEWIS A. KAPLAN and MOSES SILVERMAN, Paul, Weiss, Rifkind, Wharton and Garrison, 345 Park Avenue, New York, New York 10022, on behalf of Respondent, British Oxygen Company, Ltd.

R. BRUCE MacWHORTER and DANFORTH NEWCOMB, Shearman and Sterling, 53 Wall Street, New York, New York 10005, on behalf of Respondent, AIRCO, Inc.

P R O C E E D I N G S

JUDGE BARNES: Are you ready to proceed?

MR. TOPKIS: Yes, Your Honor.

MR. THURMAN: Yes, Your Honor, we are ready.

JUDGE BARNES: What is the program for this morning?

MR. THURMAN: I am not quite sure, Your Honor.

JUDGE BARNES: This is where we left off yesterday.

MR. THURMAN: One thing on our program is to finish off our exhibits which we do not have here at present; we are having them brought over. Do we have them?

Yes, that was part of our program. And I don't know whether Your Honor was going to listen to Mr. Topkis on his request yesterday or not.

JUDGE BARNES: Was there any decision made on calling witnesses that were scheduled for this week, scheduling them next week, or stipulation, how about progress along those lines?

MR. THURMAN: We have reached an tentative stipulation on Census; and on sales as reported by Census, which I think is going to serve our purpose.

JUDGE BARNES: Are you going to offer this in lieu of the Census reports, or in addition to?

MR. THURMAN: Oh, we are going to offer the Census reports for universe, to show market shares and concentration. And, then, we will show the stipulation of sales, that is how

JUDGE BARNES: Are you going to show ---

MR. THURMAN: I think this is reinforced, I am not sure exactly how necessary, in lieu of Mr. Topkis' admission that seven or eight firms of the bulk of the business, and that Airco was not a total -- but we still intend to offer Census and market share.

JUDGE BARNES: How about sales figures for Big Three, Liquid Carbonic and Pacific Oxygen?

MR. THURMAN: Yes, sir, we are going to be able to, I believe; I wasn't present at the negotiation.

MR. TOPKIS: Perhaps I could interrupt, because I was. I don't mean to cut in, but I think we are spinning our wheels a little bit. The chronology was Complaint Counsel proposed to us a stipulation relating to material reported to the Census by various companies.

We met this morning, Your Honor; I proposed a modified stipulation relating to the same subject. So far as I understand, it was satisfactory to Complaint Counsel, except that those present wanted to check with Mr. Thurman as to whether it was satisfactory to him.

Assuming he is in agreement, we are all in agreement and we can spread it on the record, or sign it, or whatever.

MR. THURMAN: Yes, I think ---

MR. TOPKIS: There is nothing tentative about it. We

MR. THURMAN: Sure; I don't think it needs to be read on the record at this point. We will then enter into a written stipulation and enter it as an exhibit.

JUDGE BARNES: Then, that will indicate that we will not have witnesses from Big Three, Liquid Carbonic and Pacific Oxygen.

MR. TOPKIS: I don't know why we should.

MR. THURMAN: No, as I stated yesterday to Your Honor, our primary purpose for calling them was for sales figures.

JUDGE BARNES: All right.

MR. THURMAN: If it was necessary and we were making that caveat, by cancelling them, if we could not arrive at a stipulation, then, we would call them for that purpose. And now it appears, well, we are going to enter into the stipulation.

JUDGE BARNES: All right. How about, what progress was made on the stipulation for your medical products sales figures?

MR. TOPKIS: Well, there, Your Honor, we have received the figures from our friends. We were about half-way going through them. I have told them that we will finish checking them tonight, and will call them tomorrow with our views. I anticipate no difficulty whatsoever.

JUDGE BARNES: You think we will have a stipulation on it?

MR. TOPAIS: I certainly do, Your Honor; don't know why we shouldn't.

JUDGE BARNES: Then, we should be able to complete complaint counsel's case next week.

MR. THURMAN: Yes, Your Honor, except I intend to recall Mr. Flamm and Mr. Baker for the purpose, limited purpose, of asking the questions on the Papercraft, which we did not ask before.

It might be more convenient to ask these witnesses this before we rest our case.

If YOur Honor is moving this trial, which I understand you are, to New York for defense, it might be more appropriate to recess our case the end of next week and put those two witnesses on in New York right before defense goes on just for that limited purpose of asking Papercraft questions.

JUDGE BARNES: Mr. Flamm and Mr. ---

MR. THURMAN: Dexter Baker.

JUDGE BARNES: I forget now who Mr. Baker was.

MR. THURMAN: Air Products, of Allentown, Pennsylvania. Mr. Flamm is in New York City.

JUDGE BARNES: That might be appropriate to call them the morning we open the defense hearings in New York.

MR. TOPKIS: Your Honor, I might say I don't see why we need to call Mr. Flamm and Mr. Baker. Papercraft is a word to me. I don't know why they weren't examined fully when they

were examined. They certainly testified at length. Mr. Flamm took up a whole day and I think Mr. Baker came close to it.

What are these papercraft magic incantations that they are supposed to utter?

JUDGE BARNES: We have their sales figures in the record and I think they each enumerated their competitors.

What other questions would you ask them?

MR. THURMAN: The only other question we will ask them is what is your estimate of the market, and all it does is substantiate Census. We would ask them what is your estimation of the market and these 16 people make up -- what percentage of the market these 16 people make up.

If Mr. Topkis wants to stipulate that these 16 people are the core of this, industrial gasses, whether he considers it the market or not, if he will stipulate this is the core of industrial gasses and these people make up 90, 95 percent of the market, there will be no ---

JUDGE BARNES: He said yesterday seven or eight firms have the bulk of the business.

MR. THURMAN: I think that is adequate myself.

JUDGE BARNES: What is Mr. Flamm going to add to that?

MR. THURMAN: He is not going to add anything to that, that these people make up the core, and will be 97 percent of the market; he will say 97, 98 percent of the market was made

up of those people.

Maybe I should, rather than assumming something, I should ask Mr. Topkis, or Your Honor, ask Mr. Topkis, when he has referred to seven or eight firms making up the bulk of the industrial gases, does he mean by bulk, meaning 80, 90, 95 percent? To me, the bulk is most of it.

JUDGE BARNES: I am going to leave that question for you to ask him.

But you have sales. You have sales figures from Linde Division. I believe Mr. Flamm stated he was the largest company, I believe that was his testimony.

MR. THURMAN: Yes, he did, Your Honor.

JUDGE BARNES: His sales figures will verify that one way or the other. We have the sales figures of their products. I assume you have Airco figures in the record; I don't see those, Airco's.

MR. THURMAN: We don't have those in the record yet. We will get those before we rest our case.

JUDGE BARNES: When are we going to do it?

MR. THURMAN: Whenever we get a stipulation which -- we are going to arrive at a stipulation. I think this was discussed this morning; with what they reported to Census.

JUDGE BARNES: All right, do you have the sales figures?

MR. NEWCOMB: Your Honor, might I be heard for a

moment on that point? I think there was some discussion this morning. We said to complaint counsel if he would like to propose a stipulation to us, we will consider it. We have indicated particularly with respect to the Census material, we didn't expect any difficulty.

If they have other areas they wanted to cover, we would consider.

MR. THURMAN: Certainly we are not going to become stuck up, hung up, in this with Respondents.

JUDGE BARNES: You see, I can't wait for you. You should either call a witness from Airco or get your stipulation. You say "The stipulation," "we are working on it;" how long are we going to be working on it? We have got to move this trial along.

We have got to get the evidence in the record and move to defense hearings.

MR. THURMAN: Yes, Your Honor. I don't believe that it is necessary for complaint counsel to call a witness from Respondent's company. They know what the sales are and it is their responsibility to give it to complaint counsel.

And I have never called a witness from Respondent to give the sales. Certainly, they can't hang up a case against them with their own sales. They know what the sales are.

JUDGE BARNES: It is up to you.

MR. THURMAN: And it is up to them to give them to us.

JUDGE BARNES: Get a subpoena; either get a stipulation or get a subpoena.

MR. THURMAN: That is what we will do if we can't get a stipulation this week.

JUDGE BARNES: I don't mean you are not willing to stipulate.

MR. NEWCOMB: Your Honor, we have also complied with every subpoena, and I think Mr. Thurman is clear on the record that everything we have been asked for, we have come up with promptly. We, this morning, were asked to stipulate on certain matters. I said, if I saw it in writing, we would consider it promptly and do it promptly. We are willing to do it and I so undertake.

JUDGE BARNES: My discussion is to move complaint counsel on.

MR. NEWCOMB: Yes, sir.

MR. THURMAN: I believe, Your Honor granted us until Friday to get all this put together. And we are going to get that in the record next week.

JUDGE BARNES: All right. Are you going to stick by your witness schedule for next week as presently posted?

MR. THURMAN: We are going to move Kuenn, I believe we settled that yesterday; "Keen or Coon," I am not sure of the pronunciation of it.

MR. TOPKIS: "Keen."

MR. THURMAN: "Keen,"up to the following week. I believe that is all the changes that will take place.

JUDGE BARNES: I suggest we not move him to next Monday. I would like to try to finish our Monday hearing a little early. I am supposed to participate in a seminar at 3:00 o'clock Monday afternoon. If we can't finish by 3:00 p.m., if it doesn't appear that we finish by 3:00 p.m., I will cancel the seminar, have someone else appear in my place.

So, I suggest you move Mr. Kuenn to Tuesday, Wednesday or Thursday.

MR. THURMAN: Yes, Your Honor, we will.

JUDGE BARNES: And, then, we will stick by the present list of witnesses. Are you cancelling any of those witnesses?

MR. THURMAN: Not to my knowledge.

JUDGE BARNES: Mr. Topkis, do you have any statements to make at this time?

MR. TOPKIS: I just have this suggestion, Your Honor.

I notice next week we have Mr. Porter of Porter Instruments, a small instruments manufacturer, at 9:30 a.m., and, then, nobody until 2:00 o'clock.

I am afraid, particularly with what Your Honor said, in the light of your own desire to get out early Monday, it would be wise to have Mr. Schreiber, the 2:00 o'clock witness, standing by about 11:00 a.m., because I would bet we are at

by 11 a.m.

JUDGE BARNES: All right.

Can you do that, Mr. Thurman?

MR. THURMAN: Yes, we will try our best.

We will speak to him, see if he can make it here. We scheduled him by subpoena at 2:00 o'clock. Unless Your Honor wants to say order him here early, we will certainly try to get him here as early as possible.

JUDGE BARNES: Bring him here early. Tell him to be here in the morning. Where is he coming from?

MR. TOPKIS: Pennsylvania area.

MR. THURMAN: Philadelphia, Your Honor.

JUDGE BARNES: He can be here early, can't he?

MR. THURMAN: I see no reason why he shouldn't.

JUDGE BARNES: All right, tell him to report in at 11 o'clock.

All right, at this time, should we proceed with the remainder of Complaint Counsel's documents?

Before we get to the documents, Mr. Topkis, let's assume that we finish Complaint Counsel's case on the 24th.

MR. TOPKIS: Yes, Your Honor.

JUDGE BARNES: What would be your preference then? Would you like a week, the week of the 27th, to prepare and, then, go ahead the following week on your defense?

MR. TOPKIS: That would be ideal, Your Honor.

JUDGE BARNES: That would be starting your defense June 3.

MR. TOPKIS: June 3, right.

JUDGE BARNES: And I assume you would want to start it in New York?

MR. TOPKIS: If we may.

JUDGE BARNES: And what would we be there, about a week?

MR. TOPKIS: I would say at least a week, Your Honor, I would not much more than that. I don't know, we haven't really refined down. We have to take a look at what Complaint Counsel put in and what the record looks like.

But I assure Your Honor we will be moving. I should say, a week, five to seven or eight trial days, would be my best guess.

JUDGE BARNES: And would all of those be in New York, or would the second week be back in Washington?

aa MR. NEWCOMB: I would think so.

MR. TOPKIS: What?

MR. NEWCOMB: I would think New York and ---

MR. TOPKIS: Well, the principal witnesses we have, Your Honor, are Airco people who are in New Jersey, of course, right outside of New York; and BOC people, who would be coming over and who can work best in New York.

JUDGE BARNES: You have Mr. Nathan from Washington now.

MR. TOPKIS: I am probably going to drop him.

JUDGE BARNES: You are probably going to drop him?

MR. TOPKIS: I haven't decided firmly, but probably.

JUDGE BARNES: Stanford Research?

MR. TOPKIS: Stanford Research would be coming in from California. We could surely schedule at least a couple of days in Washington, Your Honor, and can do it at the end, or whatever suits Your Honor's convenience.

JUDGE BARNES: I was thinking of reserving a hearing room in New York. I will reserve one for the entire week of June 3.

MR. TOPKIS: Very good. If you could reserve it two days into the following week, we would be safe.

JUDGE BARNES: Two days; seven days?

MR. TOPKIS: We hope not to use it; we hope to come back here.

MR. THURMAN: Your Honor, I might point out, Complaint Counsel in no way are trying to stall this trial, or delay it in any manner. But the only thing I would like to bring to your attention is that we haven't talked to any of these witnesses yet.

I don't know if a week will be enough time for us to talk to them, if they would be made available. We certainly don't desire to fly out to Stanford Research to talk to one man in California.

I would just as soon talk to him sometime prior to taking the stand. But we would like to have an opportunity to have some time with these witnesses. I assume it could be, maybe handled in that week.

JUDGE BARNES: Well, you are going to have a week in which to talk with these witnesses. Also, that week that we are off, I would expect you to finish your case in the event that there are any loose ends. You have yourself, Mr. Youngwood, Mr. Purcell, Mr. Nickel; I think you can get around to see all of the witnesses.

MR. TOPKIS: Your Honor, could I say I just noticed, checking my calendar, that that week that we agreed to take off, that includes, has the Monday, the Memorial Day weekend?

We are taking off the week of the 27th. And I wonder, in consequence, just because my people have been working very hard and I will confess I have and I am sure Complaint Counsel have, whether instead of starting the third in New York, Monday the third, we could start on Wednesday the 5th. Would that be convenient to Your Honor?

MR. THURMAN: I have no feelings either way. I don't want to go to New York to start with.

JUDGE BARNES: You were just asking for more time.

MR. THURMAN: Right. That fits in with my request.

JUDGE BARNES: You have no objection, I take it?

MR. THURMAN: I have no objection. The only thing

I objected to is going to New York. I think I have noted that objection all along.

JUDGE BARNES: We can start on June 5 just as well.

MR. TOPKIS: Thank you, Your Honor. That is much appreciated.

JUDGE BARNES: Then, probably, I will reserve a room for the remainder of the week of the 5th, and probably the entire week of the 10th.

MR. TOPKIS: Right, Your Honor, and we will hope to be done before that.

MR. THURMAN: YOur Honor, we would like to make a request.

When we are talking about their requests, we have no information on their experts, what they are talking about or their qualifications or anything else. We would like some information, curriculum vitae.

MR. TOPKIS: WE will be glad to submit that.

MR. THURMAN: What areas they will be discussing.

JUDGE BARNES: And, Mr. Topkis, would you give Complaint Counsel at least a one-paragraph summary of the areas that he will cover?

MR. TOPKIS: Sure, Your Honor; gladly. Oh, my good colleague reminds me that there are a couple of experts being

Thurman told us they are.

Dr. Hedley White of Beth Israel Hospital in Boston and a Dr. Karpick of George Washington University, here in Washington.

JUDGE BARNES: All right, Complaint Counsel will furnish Respondent's Counsel with information about those two experts.

MR. THURMAN: I was a little premature in my request, wasn't I?

JUDGE BARNES: Yes, you were. And also a brief summary of the areas that these witnesses will cover.

MR. THURMAN: Yes, Your Honor.

JUDGE BARNES: Can you do that today or tomorrow?

MR. THURMAN: Tomorrow, we surely will.

MR. TOPKIS: YOur Honor, there is no need to rush Complaint Counsel. Dr. White is not going to testify until Tuesday. If we can have an outline by Friday, that would be fine.

MR. THURMAN: Thank you.

JUDGE BARNES: He wants it in his hands by Friday, so this means either a telephone call or a letter in time to get it by Friday.

MR. TOPKIS: Either way would be fine.

MR. TOPKIS: Yes, sir.

MR. THURMAN: Your Honor, Complaint Counsel has offered Commission Exhibit 204-A.z-z-21.

I withdraw that statement, Your Honor. We inadvertently did not bring that with us. I am going to send Counsel over to pick that one up. WE will go from exhibits that have not been offered yet.

I was going to reoffer an exhibit.

MR. TOPKIS: Your Honor, would it make as much sense to defer these exhibits until we are together again? I don't want to put any pressure on Complaint Counsel and I must confess by reason of the change in courtrooms, I don't even have my set here.

I do have Shearman and Sterling's and would be glad to work with them if Your Honor would like. But equally, we could work with them another time. I think we have only got three or four that we take issue with so we can wrap them up pretty fast.

JUDGE BARNES: All right, do you want to?

MR. THURMAN: We have our exhibits that were offered initially. We just haven't got the ones that were withheld.

JUDGE BARNES: The point is, can we accomplish anything now or can we take exhibits up one day next week?

MR. THURMAN: I don't know how long Your Honor wants

documents in.

JUDGE BARNES: All right, we will work to 12 o'clock; thirty-five minutes.

MR. THURMAN: Your Honor, I assume you would like to take the same procedure? We can make an offer from 269 on. But it might be better if Mr. Topkis will say the ones that he has objections to and, then, we will see.

Then, we will offer the ones at this time he does not have objection to; then, go into the ones that have objections.

JUDGE BARNES: Did we stop off at 268?

MR. THURMAN: Yes.

JUDGE BARNES: I don't have my list with me.

MR. THURMAN: We stopped at 268.

JUDGE BARNES: Okay, you offered from 269 to ---

MR. TOPKIS: 269 is withdrawn, is that right?

JUDGE BARNES: Now, 269 through 299.

MR. TOPKIS: Your Honor, we have no objection to 269. And we have no objection to 270 or 271.

MR. THURMAN: Your Honor, 277 has been withdrawn

CX-277 withdrawn

(Commission Exhibit CX-277 was withdrawn.)

JUDGE BARNES: All right.

At this time, I will receive Commission Exhibits 269-A through B; 270-A through C; and, 271

(Commission Exhibits 269-A through B; 270-A through

MR. TOPKIS: 272, Your Honor, I do object to. It is a copy of a letter from Harris Calorific, dated February 15, 1973, to a Mr. Pool, of Air Products. And at the time the letter was written, we owned 24 percent of Harris Calorific, and hence, I submit -- and there was a far larger stockholder, and hence, I submit the letter is not binding on us and I object to its receipt in evidence.

It also reports on nothing but rumor, as the letter itself states.

JUDGE BARNES: May I see the exhibit, please?

MR. TOPKIS: May I? (He handed the exhibit to the Judge.)

JUDGE BARNES: This doesn't add a great deal to your case, does it? I see a copy, though, went to Mr. Perham.

MR. TOPKIS: That is right, Your Honor.

MR. THURMAN: That is what I was going to bring up.

MR. TOPKIS: That is the one that you are holding in your hand; that is where it came from.

MR. THURMAN: Your Honor, I think this would tie in, probably, with this Commission 271, where it refers to Mr. Perham there, and copy of 272, as Your Honor just noted, is to Mr. Perham.

This regards the possible acquisition of ---

JUDGE BARNES: I will receive this as a letter received by Mr. Perham for whatever it was worth.

I will receive Commission Exhibit 272 in evidence.

(Commission Exhibit CX-272 was received in evidence.)

MR. TOPKIS: So far as Commission Exhibit 273, Your Honor, this is a letter back, Your Honor, and since you have received 272, I am not going to push my objection to 273. I assume you will take it for the same purpose.

JUDGE BARNES: All right. A copy of this went to ---

MR. TOPKIS: Somehow we got hold of a copy, no question about that.

JUDGE BARNES: All right, I will receive Commission Exhibit 273.

(Commission Exhibit CX-273 was received in evidence.)

MR. NEWCOMB: No objection, Your Honor.

JUDGE BARNES: Received in evidence.

MR. TOPKIS: Now, 277 has been withdrawn but aside from that, we have no objection to Commission Exhibits 274 through 285.

JUDGE BARNES: Any objections from AIRCO?

MR. NEWCOMB: No objections, Your Honor.

JUDGE BARNES: Are you offering exhibits through 285, Mr. Youngwood?

MR. YOUNGWOOD: We are, Your Honor.

JUDGE BARNES: All right, I will receive 274-A - B; 275-A - C; 276; 278; 279-A - B; 280; 281; 282; 283-A - B; 284 and 285 in evidence.

5-14-74

XXXXX

(Commission Exhibits 274-A - B; 275-A - C; 276; 278; 279-A - B; 280; 281; 282; 283-A - B; 284 and 285 were received in evidence.)

JUDGE BARNES: Mr. Youngwood, it is up to you to offer these exhibits, you know.

MR. THURMAN: I am sorry, Your Honor, I didn't know that was the way we were going forward.

MR. TOPKIS: I can perhaps help, Your Honor.

JUDGE BARNES: All right.

MR. TOPKIS: The next exhibit, 287 -- I am sorry, 286. I object to the receipt of this document for any purposes other than that it was received by BOC. It is a letter of solicitation from a business broker and I don't want to be bound by any statements of asserted fact there.

But for non-hearsay purposes, I don't mind its coming in.

JUDGE BARNES: All right, I will receive Commission Exhibit 286-A through E as being a letter being received by Respondent BOC.

XXXXX (Commission Exhibit CX-286-A - E was received in evidence.)

MR. TOPKIS: We have no objection thereafter, Your Honor, through 295.

MR. THURMAN: Complaint Counsel offers CX-287 through CX-295 to be received in evidence.

JUDGE BARNES: Through 294, Mr. Thurman?

MR. THURMAN: Oh, excuse me; 294.

MR. TOPKIS: No, through 295.

JUDGE BARNES: Through 295?

MR. TOPKIS: Yes, Your Honor; sorry.

JUDGE BARNES: I will receive Commission ---

MR. NEWCOMB: Your Honor, may I be heard for a moment?

JUDGE BARNES: Yes.

MR. NEWCOMB: I notice there are a number of documents, starting with 287 and 290, where Complaint Counsel in its witness list and document list indicates there is no author.

I gather that those are being admitted only for limited purpose, that they were found in the files of Respondent, BOC.

JUDGE BARNES: Now, which one are you referring to?

MR. NEWCOMB: Well, I notice 287 and 290 have no author indicated.

JUDGE BARNES: 287, I assume, was written by someone at BOC. I haven't seen the document, but I should have assumed it was.

MR. TOPKIS: Your Honor, I should have notified my friend. We checked. It was written by someone at BOC, and that someone is sitting right here in this courtroom, Mr. Peter

Laister.

MR. NEWCOMB: On that basis, I have no objection to the exhibit.

JUDGE BARNES: All right.

Now, there was another one, 290. May I see Exhibit 290?

MR. TOPKIS: Your Honor, again, that was written by someone at BOC. At this time, I am not certain of the author.

Mr. Laister tells me it was written by him. I have no objection to it.

MR. NEWCOMB: Then, I have no objection, Your Honor, on the basis of the information.

JUDGE BARNES: All right.

I will receive Commission Exhibits 287, 288, 289, 290; (A - C); 291, 292 -A through Z-12; 293-A - R; 294 and 295 in evidence.

XXXX (Commission Exhibits 287; 288; 289; 290-A - C; 291; 292-A - Z-12; 293-A - R; 294 and 295, were received in evidence.)

JUDGE BARNES: Commission Exhibit 290 is numbered A through C, I note in going through here.

You have Exhibits 296 through 299. Are there any objections on any of those exhibits?

MR. TOPKIS: We object, Your Honor, to 296, which is said to be a preliminary report of the 1972 Census of Manufactures. And we have a number of bases for that objection. If

I may spell it out ---

JUDGE BARNES: First of all, you say "A preliminary report"?

MR. TOPKIS: Yes, it is entitled, Preliminary Report, 1972.

JUDGE BARNES: Is there not a final?

MR. TOPKIS: I don't really know, Your Honor.

Mr. Kaplan tells me no.

JUDGE BARNES: No?

MR. TOPKIS: I don't know why. Oh, I can now offer a good guess. The preliminary report is issued March 1974. So, I suppose the final will be along sometime or another. It probably isn't available yet.

In any event, Your Honor, this states a definition for the industrial gasses industry, which this report is directed to, which is rather smaller than I think most people would normally consider in industry because it begins "The industrial gasses industry includes establishments primarily engaged in manufacturing gasses for sale in compressed, liquid, and solid form."

And that would eliminate any petroleum companies which manufacture ammonia and sell off the by-product, hydrogen. It would eliminate any fertilizer companies who do the same thing; it would certainly eliminate the steel companies and companies like Ford which we heard yesterday on occasion sell

in the merchant, in spot market.

In short, Your Honor, at the very best, this is only what it says it is, it is a report on companies that are primarily engaged in manufacturing and selling industrial gasses. And there are various other ways that companies, that producing facilities would be excluded from this, Your Honor.

JUDGE BARNES: I was wondering about pipeline sales. Would they?

MR. TOPKIS: I can't tell, I can't tell. Or over-the-fence sales. I would respectfully suggest that we have stipulated that what the companies involved here, as to any companies that Complaint Counsel ask us, we will stipulate as to what they reported to the Census.

And I would hesitate very much to be bound by what the Census, then, did with those reports and some other reports that I don't know about, to come up with this document that is now being offered in evidence.

It seems to me that we ought to have one asserted identification of the companies and products we are talking about in volumes, and not several because, then, we don't know what we are talking about.

JUDGE BARNES: Well, I think Complaint Counsel should tell us now what they think the market consists of. I assume you are going to exclude petroleum companies, U. S. Steel and Ford Motor, are you?

MR. THURMAN: Your Honor, I don't believe Mr. Topkis read far enough. Those companies are included in Census:

"The total value of industrial gases shipped by all producers in 1972 was $649 million of which $595 million, or 92 percent, was shipped by plants classified in industry 2813, Industrial Gases, while the remainder was shipped by plants classified in other 'coverage ratio,' was 89 percent in 1967."

That is included in there.

MR. TOPKIS: I don't know that it is, with respect to Mr. Thurman, Your Honor, I don't know what those words mean. And that is the very problem you have in dealing with a report like this, you can't cross-examine the person who wrote it and go through the ambiguites.

MR. THURMAN: Your Honor, we have furnished a copy -- we have been through this. This is a matter assumed to be reliable by the Commission, in the footnote. It has been accepted, and other judicial notice has been taken, I know, of two other cases offhand.

I am sure there is more, which is the Budd Company, for one, Pepsico Company and Rheingold, their acquisition of Rheingold and this was accepted by the Commission and by the Courts.

JUDGE BARNES: I can take judicial notice of the Census report, but what am I taking judicial notice of? Are you both going to be arguing in your findings that it means one

thing and somebody else says another?

How am I going to make a determination? Is there going to be a record basis?

MR. THURMAN: We are going to get a record of how this is required by law.

JUDGE BARNES: Can you get a witness to tell us?

MR. THURMAN: A witness would add nothing, Your Honor. WE could call a witness. Judicial notice does not necessitate the calling of a witness. It is very clear; and the Commission said it is reliable.

And what we are using it for is no secret. We are using it for the universe. If Mr. Topkis wants to stipulate what the universe is -- in a Section 7 case, you have got to have a universe if you go to show market shares.

If he wants to stipulate that, we will gladly withdraw Census. Otherwise, we have got to put Census in, to show the universe.

JUDGE BARNES: I notice in AVNET, a witness was called.

MR. THURMAN: Yes, Your Honor; as I stated the other day, it was unnecessary. And they made that decision at that time and in future cases, I have not called any witnesses and neither has anybody else, I know, since that decision was rendered.

MR. TOPKIS: Well, Your Honor will perhaps recall,

at least, the copy of AVNET that Mr. Thurman has been good enough to furnish me, says that such material is admissible when it is generally accepted, when it bears certain indicia, guarantees of reliability.

But here we have the fact that the only witness who has testified on the reliability of these reports, these figures, was the first witness called by Complaint Counsel, Mr. Flamm, and he says nobody in the industry pays any attention to them because they are unreliable; in that circumstance, I didn't call the witness.

MR. THURMAN: Sure, Mr. Flamm, this is a gratuitous remark by Mr. Flamm, which there was no foundation that he knew other people didn't rely on it. And Mr. Flamm did not go to the reliability of Census, he went to the point that -- he keeps his records differently, he includes distribution costs.

But in a Section 7 case, it does not matter if they are all reported the same; that is the only thing that matters, you have got the universe. It doesn't matter if this guy thinks there should be distribution cost, and this guy doesn't, as long as they are reporting the same.

In a Section 7 case, that is all that matters.

MR. TOPKIS: That is the whole point.

MR. THURMAN: You know, we look at the broad picture. It doesn't have to be that precise. The Courts have held that.

MR. TOPKIS: I agree with Mr. Thurman, Your Honor.

I agree that there is no point in nitpicking in this kind of situation. That is why I said I don't have any doubt that seven or eight companies account for the bulk of the sales in this business.

But when my friend says, "That is not enough, Mr. Topkis, I want to pin it down to the last dime," I say to him, you can't do it this way, because this way is totally unreliable.

MR. NEWCOMB: Your Honor, ---

MR. THURMAN: I think I am almost willing to accept Mr. Topkis' --- if we can find the bulk and if this concentration is as alleged in the complaint, that it is highly concentrated. That is the thing that -- two things that that purpose of Census is for concentration, and certainly in, a tight oligopoly is one thing, a loose oligopoly is another thing.

And I think with eight firms representing 100 percent of the market, even if eight firms represent 50 percent of the market, it is a tight oligopoly. And also, Census recognizes this as an industry, the 2813, industrial gases, and it is recognized throughout that industrial gases is one type of producer and it has a market definition and it has market shares.

Certainly concentration is our main, only point.

MR. TOPKIS: I have admitted what?

MR. THURMAN: That AIRCO was a leader.

MR. TOPKIS: No, I admitted that it wasn't a "toe-hold."

MR. THURMAN: Well, same thing.

MR. TOPKIS: As long as we understand that I said what I said and you said what you said, okay.

MR. THURMAN: Market.

JUDGE BARNES: Let me tell you, this is your case you put in the figures you want to go in the record and you are going to be bound by them, so no point in your making an analogy to what they mean. It is going to be your record.

MR. THURMAN: Sure, that is why we offered it and Your Honor will take judicial notice.

JUDGE BARNES: All right.

We have another party wishing to make a statement now.

MR. NEWCOMB: Your Honor, we just want to join in the remark Mr. Topkis has made about what the reliability of this material is. There have been three witnesses, at least, who testified that the reporting system underlying this report varies from company to company.

Mr. Flamm was the first one, the Linde Division,

that in that process, they weren't relying on the Census material particularly as to value.

We have had two subsequent witnesses, at least, who indicated they reported in different manners with respect to that material. In addition, there is substantial testimony with respect to the question of what constitutes industrial gases and what constitutes somebody's definition of someone else's definition of industrial gases.

On all those bases, I think the reliability of this material, establishing the facts underlying it, is so substantially questioned that you cannot admit it for that purpose.

MR. THURMAN: I think I appreciate Respondent's Counsel's remarks, but I don't think they are accurate. Mr. Flamm made some gratuitous remarks that didn't really go to reliability, the structure.

If they reported under law something that is not right, I am sure Census would like to hear this and maybe get a copy of this testimony, that they are reporting something that is not correct.

So, he didn't go to reliability. Those figures have to be reliable, it is reported under law.

JUDGE BARNES: Mr. Thurman, I am bound by the Commission's decision in AVNET. They have ruled that I can take judicial notice of these Census figures, and as to whether or

be meaningful is something that I cannot determine at this time.

I will take judicial notice of what has been marked as Commission Exhibit 296, the 1972 Census of Manufactures. I understand this is a preliminary report, but apparently, the only one that has been issued to date.

And I propose that we leave it marked as 296 and I receive it in evidence, but on the basis of official notice, not as an Exhibit. But it would be best that we have it in the record where it is available to everyone.

Does that satisfy everybody?

MR. TOPKIS: Certainly, if Your Honor wants to treat it that way, that is the best.

JUDGE BARNES: I will receive Commission Exhibit 296 in the record on the basis of official notice under the Commission's doctrine as stated in the AVNET opinion, Docket No. 8775, dated January 29, 1971.

(Commission Exhibit 296-A - H was received in evidence, on the basis of official notice.)

MR. TOPKIS: Of course, my objection is not withdrawn. I bow to Your Honor's ruling, of course.

JUDGE BARNES: I understand.

MR. NEWCOMB: We would like to make that also, Your Honor.

JUDGE BARNES: Your objection is in the record and

duly noted.

MR. TOPKIS: Your Honor, 297 has already been rejected, I believe.

That was that half-French, half-English document of Canadian Liquid Air.

MR. THURMAN: Before we go to the next exhibit, may I interrupt?

We would like to put the official translation in the record, substitute it for the inexpert translation.

MR. TOPKIS: We haven't seen a copy yet but I would welcome that.

JUDGE BARNES: This is the exhibit that is in the rejected exhibit file?

MR. THURMAN: Yes.

MR. TOPKIS: Right. I have no objection to the substitution. I would like it.

MR. THURMAN: We don't have it with us, Your Honor. May we take it with us and get what we haven't got, or can we substitute it?

MR. TOPKIS: Do it any time.

JUDGE BARNES: Yes, we can substitute it another time. I forget now, my basis for rejecting.

MR. TOPKIS: It was prepared by Canadian Liquid Air; we have not prepared it; not binding; there are loads of reasons.

MR. THURMAN: That wasn't the reason. We introduced it through a witness from Liquid Air, so the record, ---

JUDGE BARNES: The record will be clear.

MR. TOPKIS: The witness testified ---

JUDGE BARNES: The record has been made. I merely wanted to get a brief refreshing of my recollection as to why it was rejected.

MR. THURMAN: Likewise, we can't ---

JUDGE BARNES: But at a later date, you will offer, you will substitute an official translation for the translation which was received in the record.

MR. TOPKIS: Your Honor, we have no objection to 298, 299, which are instruction directions put out by the Census.

MR. THURMAN: Complaint Counsel offers CX- ---

MR. NEWCOME: No objection.

MR. THURMAN: CX-298 and 299 for identification to be received in evidence.

JUDGE BARNES: All right, I will receive Commission Exhibits 298 and 299 in evidence.

(Commission Exhibits CX-298 and 299 were received in evidence.) (CX-298-A - B and CX-299 A - B)

MR. THURMAN: Your Honor, at this time before we go further with this, we would like to reoffer at this time CX-204-A ---

MR. TOPKIS: 204?

MR. THURMAN: Maybe I better hold up on that. I believe Your Honor asked me to specify which parts of this. It is a long, Census Manufacture thing, which would come under judicial notice.

JUDGE BARNES: All right.

MR. THURMAN: But if you would like us to specify ---

JUDGE BARNES: Yes.

MR. THURMAN: Maybe take up at this time what we want in this part of the case. I will withhold offering that, excuse me.

JUDGE BARNES: All right. There were other exhibits, I believe.

For instance, Commission Exhibit 60. Commission Exhibit 60 is one that could be reoffered. Do you have others?

MR. TOPRIS: I think that is af far as we have got, Your Honor. We haven't gotten the balance, if any.

JUDGE BARNES: All right, off the record for a minute.

(Discussion off the record.)

JUDGE BARNES: 298-A through D; 299-A through D, also they have been received in evidence.

Off the record.

(Discussion off the record.)

JUDGE BARNES: On the record.

MR. THURMAN: Your Honor, we have nothing else at this time. We would have a few more exhibits that we would want

to offer. And some we received late from Mr. Topkis under the last subpoena.

We will try to give him copies. I don't believe he has got copies of four or five exhibits that we want to introduce.

JUDGE BARNES: That is Nos. 300 and 301, and so forth?

MR. THURMAN: Yes. We would like to get them to him as soon as possible this week and, then, take it up next week. But this, and, then, the ones that we would like to reoffer, and we will do that next week.

JUDGE BARNES: All right.

MR. THURMAN: We have nothing else on our exhibits at this time. But we do have a few that we would like to take up next week.

JUDGE BARNES: Anything further that we can discuss now?

MR. TOPKIS: I take it, Your Honor, we are not going to discuss what we believe has been proven here. I am perfectly prepared here but I gather Complaint Counsel would rather pass, and so ---

JUDGE BARNES: Would you rather pass, Mr. Thurman?

MR. THURMAN: I am prepared to argue, but I don't see the point in it. I think it is a waste of time.

JUDGE BARNES: I don't think we are going to come to

any conclusions, but if you wish to, Mr. Topkis, to speak for 15 minutes, give me some ideas of what you think has been offered, it might be helpful to me.

MR. TOPKIS: All right, Your Honor.

JUDGE BARNES: And also might be helpful to Complaint Counsel.

MR. TOPKIS: That is entirely possible. I might say, I will make my remarks against a background of my understanding that Complaint Counsel have now submitted the evidence that they propose to submit in the guess area, except for these stipulations that we are working out on reports to the Census, and these three or four exhibits that they haven't yet given us, if they relate to the guess side, I don't know what they are, so I don't know whether they do or not.

JUDGE BARNES: And also some stipulations on some additional expenses.

MR. TOPKIS: Right.

JUDGE BARNES: As well as AIMCO.

MR. TOPKIS: Right.

JUDGE BARNES: And also I assume, Mr. Topkis, they are relying on all those exhibits that are going in the record, and I have not read them and I am not familiar with them.

MR. TOPKIS: Your Honor, it is particularly because of that they thought it might be helpful to Your Honor to get a feeling of it's the form and the person that we are dealing

with here.

And that is why I thought we might take 10 or 15 minutes and just sketch it into Your Honor.

As I said yesterday, I don't think there are any secrets here. It is like most Section 7 cases, it is a game of showdown poker. You lay everything down on the table and you take a look at it.

And so far as BOC acquisition of 35 percent interest in AIROO is concerned, it seems to me that we are faced with two questions: One, did this acquisition tend substantially to lessen any actual competition that existed at the time of the acquisition? And, 2, in the light of the recent cases, did that acquisition tend to lessen potential competition which but for the acquisition potential, competition could reasonably have expected to develop and mature.

And so I think I would like to address myself to those two questions very briefly.

First, so far as actual competition is concerned: It is perfectly clear, I suggest to Your Honor, that BOC never sold the first cylinder, the first pound, the first whatever, of an industrial gas in the United States, and never had any intention of doing so.

JUDGE EDELSTEIN: BOC was building plants in the United States?

MR. SMITH: BOC was in the business of building

plants. Actually, we didn't build plants, Your Honor, we built what are called cold boxes, C-o-l-d boxes, which is what we call the guts of the plants, it is what makes the gases go.

But that is a very interesting point. We build those plants around the world. We have tried, beginning in 1967 in a joint venture with AIRCO, to go into the effective business of building plants and build supplying cold boxes in the United States.

And I don't know whether Your Honor caught the significance of this but that joint venture was a bust. You remember Mr. Bulow testified that when he was with AIRCO in 1967, he recommended against it, saying that project just wouldn't work.

Well, BOC and AIRCO went ahead with it, they tried it and in 1973, they dropped it. It had been a failure. They had sold a few plants. They sold one to U. S. Steel, Your Honor will recall, and a couple of others. But as a significant enterprise, that was a failure.

And so, we left it. We had pursued, I think a total of three plants, and that was all. Now, that is all that BOC's involvement in the United States was in the prior field. So we suggest that there was any actual competition, any actual acts played in the previous industrial gases field, which may be lessened by this acquisition, is nonsense.

All right, so now let's go to potential competition, and

there, I think we have to talk about the issue of was BOC reasonably likely to have entered the United States market and that that is a question that is raised in two senses, I believe:

One; but for the acquisition, was it very likely that BOC would have entered the market and hence become a competitor in the near future? And, 2, was BOC perceived by those in the market as so likely an entrant that they shaped their own decisions?

Your Honor will recall the language of Peterhoff, did that perception affect their on-going decisions, did they hold back from price increases for fear that if they jumped the price, BOC would come running in?

That is the kind of thinking -- so did they deliberately take other steps that were conditioned by the likelihood of BOC's entry. All right, now, taking those up in sequence: price hikes: Now, did you say if you could find, you could have a violation on either of those two?

MR. DAVIS: I think they ought to go together, to tell you the truth. And I think the law is a little hazy on that point. But I think in reviewing the evidence, we will see that there is not in on either side.

As to the likelihood of BOC's entry, but here, I think first comes to perhaps where I can perhaps to of the previous section to the court is giving you a kind of roadmap through the exhibits.

Italy, and there was one made on the United States, as part of this business of the new management familiarizing itself with the options and establishing the program.

JUDGE ROBERTS: So BSC is open in Italy at the time?

MR. CURTIS: BSC did not go into Africa.

JUDGE ROBERTS: And they were not there?

MR. CURTIS: They were not there.

They stayed in Britain during the heat of Cuomo and Mr. Ross Perot[sic], a BSC research and team leader, to explore the business computers engaged in the industrial gases business and export to Europe. BSC should seriously consider entry into the industrial gases field in the United States.

And Tom Rowe did a whole series of documents in the file relating the development of this idea.

On Page 108, I think, and in September of 1993, and then, December of 1993, in the Bond project the idea of making such a report to the United States.

And it got up to the time to the Penney and Mary Cadogan that Europe and Scandinavia is about -- Bill, Page that did a lot of desk work. They got to possess about 30 pax on the business situation assessing and that is an outside which to bring Tom Rowe.

And then they had asked, and then key to write a lot of pieces I think to the activity of Western Europe [illegible] the Penney and Cadogan did the file. They

went around all over the country talking to everybody engaged in the industrial gross business in the United States and they said to them: "Look, Miss American businessman, BOC needs guidance on how to run its activities in Europe, tell us how you should people run your businesses in the United States."

This was one of the greatest cover stories since "The Planners."

MR. TAUBIN: Your Honor, may I interrupt a minute? Pardon me for interrupting, but if you want to allow him to go ahead and talk what is not in the record, which is what this is, I think it should be in the record that is discussed at this time.

[illegible] I assume he was discussing documents.

MR. TAUBIN: A document that is not in the record.

MR. [illegible]: I assure you I am discussing [illegible] the facts going around the country these men took in a fact-finding [illegible].

MR. [illegible]: I am not talking about the notes; I am talking about the [illegible] report, which is not in the record.

MR. [illegible]: It is in the record.

MR. [illegible]: And the facts stated are in the record [illegible].

MR. WOFSEY: Oh, I am sorry, Your Honor. My friend is absolutely right, they did put in the field notes but that is to say the report that these gentlemen made around the country of everybody they interviewed on an interview-by-interview basis.

But after offering the final report that these two men made, inexplicably, Complaint Counsel withdrew it. We are going to offer it, of course.

And just by way of a little earlier, and now, I am talking about a document that is not yet in the record, but so you can know where this case is going, these two men reported on the basis of all of their field notes and all of their investigation and I can quote just about exactly, quote, "There is no case to be made for GE to enter the industrial gases business in the United States."

That was their final recommendation.

Only, that report was -- and that report was made about the end of February, 1959. That report was considered by this Trade Commission and it was decided that the report was a satisfactory report and we turned its attention to other fields.

And this is, we [illegible] a period of a few years we do going to make the money in the welding field and that

[illegible] will you is the United States and Japan shared the [illegible] distinction of being fifth and last in the order of priority and the enemy that was alienated, not for cause, mind you, but for everything.

Oh, but, now Zealand some ahead of the United States, the richest market in the world.

This is not industrial peace, but everything. He [illegible] a [illegible] for use in the United States and that does [illegible] a document introduced by Empirian counsel. But since the [illegible] report was made in [illegible] of 1970, we have been two years and here, I [illegible] to relate that you have heard about a number of [illegible] between Mr. and a number of companies [illegible] possible acquisition.

Mr. [illegible]: The significance of the [illegible] is [illegible] by that and the testified the other day.

Mr. [illegible]: Mr. Chairman.

Mr. [illegible]: Right. We used to [illegible] the [illegible] of it. But that was before the [illegible] [illegible]. Everyone is the [illegible] [illegible] I would [illegible] that [illegible] [illegible] by Mr. [illegible] by [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

look at what he had to say, and said, thanks, no, nothing here to warrant -- they were saying to themselves -- to warrant departure from the Durham-Greenfield rankings.

Oh, I am sorry, excuse me. I want to make sure of my facts, Your Honor. I beg your pardon, my friend corrects me and he is quite right.

His two witnesses were not -- Richard Greene was not involved. One was by Chili Perkins of the other hotels, Bureau of Operations. He counted out and they looked at him and said, Mr.

His other witness was by the Durham Corporation yard. They moved to interest me in going into the bottom hotel, San Diego, and it looks like what they were really saying about me, the bottom business is Durham, not in the hotel field.

Even the name attempt to suggest that that the association was going to place tanks in Durham and to the Durham people, his own witness, his own testimony is putting the Durham hotel business. I don't know whether that happened or not, but in any event, nothing came of it.

Mr. Lee in addition to this attempted to the Fidelity-Greenfield suits, his name. One by Chili Perkins of Durham Hotels [illegible] another one by Durham Corporation [illegible]. I beg your pardon, I was mistaken

[illegible]

gone to dealers which are stronger in the field of selling, in the anesthesia field, than in the inhalation therapy field. We took an estimate. It is an estimate as going to our machine. It could be plus or minue or 10 percent off.

Q I am sure it is the best you could possibly do. I am not challenging that for a second. What I want to have perfectly clear, though, is how much time did this take you, you personally, Peter Schreiber?

A Slightly over one day.

Q You spent eight working hours responding to this questionnaire?

A Correct. Not this questionnaire, the whole report.

Q The whole questionnaire?

A Right.

Q When was that, sir?

JUDGE BARNES: Give us an approximation.

THE WITNESS: About four weeks ago.

By Mr. Topkis:

Q Wouldn't this be accurate, Mr. Schreiber, that you did the best you could, but you have no way of knowing whether the respirometers were used for anesthesia or inhalation therapy?

A It is an estimate.

Q But there are estimates and estimates, sir. I am suggesting to you that this one is a couple of steps removed from

reality; isn't that right?

MR. PURCELL: Objection, Your Honor.

JUDGE BARNES: We can answer these questions.

THE WITNESS: I would say the accuracy is plus or minus 10 percent.

MR. TOPKIS: That, too, is an estimate?

THE WITNESS: That, too, is an estimate. There is no way to answer this question.

MR. TOPKIS: Exactly, sir. That is exactly my point. Thank you, sir.

JUDGE BARNES: Mr. Schreiber, I would like to know the basis of your including a respirometer on page 2 and including a respirometer on page 10. What was the basis of your decision?

THE WITNESS: Your Honor, why we included it, it was asked. We were asked to.

JUDGE BARNES: How did you go about separating the respirometers into two catgories?

THE WITNESS: We have computer runs which tell us when a respirometer is sold that goes with the anesthesia machine.

JUDGE BARNES: You mean the equipment that goes with it?

THE WITNESS: Yes. With a very good estimate, this unit sold with the anesthesia machine will stay with the

anesthesia machine. It can be removed by itself. Very likely not to be removed. We also separate computer runs to the dealer. We know that some dealers are more in the field of the selling of inhalation anesthesia and some dealers are more in the selling field of inhalation therapy.

First, it gives some sort of an estimate. From these figures we have taken the estimate, what went to one and what went to the other.

JUDGE BARNES: I am going to receive Commission Exhibits 314 A through M and 315 A through M. I will receive these exhibits in camera.

XXXXX (The documents heretofore marked for identification as Commission Exhibits 314 A through M and 315 A through M were received (in camera) in evidence.)

JUDGE BARNES: By way of information to respondents' counsel, I believe that these documents should come under my protective order that I have issued in this proceeding.

MR. TOPKIS: That is fine with us, Your Honor.

JUDGE BARNES: You may proceed.

By Mr. Purcell:

Q Mr. Schreiber, I am showing you a document prepared under your supervision. I am referring to CX 314. I would like you to refer to Part B, which begins on Pace CX 314-F.

A It is 314 or 315?

Q It is 314-F.

A Okay. Page?

Q CX 314-F, page 5. My understanding is that all the products listed under this section indicate what products are actually manufactured by North American Draeger; is that correct?

A That is correct.

Q The first product is an anesthesia machine. Could you describe what the function of an anesthesia machine is?

A An anesthesia machine is basically an extensive system of gas cylinders and vaporizers containing reducing valves which reduce the high pressure in gas cylinders to medium pressure in the anesthesia machine and accepts also gases from pipelines from the wall outlet.

The anesthesia machine has further control devices to control the gas flow and measuring devices to measure the gas flow. Later on, this flow is normally enriched with the vapor of a liquid anesthetic and delivered to the so-called anesthesia breathing system, which is an absorbing system or not breathing system to which the patient is connected.

Q Mr. Schreiber, the second item is anesthesia vaporizers. Although Part B does not indicate this is produced by your company, Part A, I believe, indicates they are purchased by your company for resale purposes?

A Correct.

Q Could you briefly describe the function of anesthesia

with vaporizers?

A Anesthesia vaporizers are used to enrich the gases delivered to the patients with the vapor of an anesthetic agent. They are normally designed in a two-way manner. While one portion of the gas bypasses a vaporizer chamber while the other portion passes through the vaporizer chamber and is saturated with the vapor of a liquid anesthetic agent.

Both flows are a combined downstream of a vaporizer. By having orifices in the vaporizer or in the gaslines leading to the vaporizers, you can alter the concentration of the vapor or the liquid agent in the gas delivered to the patient.

Q The next item is mounts and supports for vaporizers. This item is manufactured by your company?

A Correct.

Q Could you briefly explain what the purpose of these are?

A In many cases, different brands of anesthesia machines, manufacturers' brands and vaporizers are combined in a hospital. So, a customer may buy an anesthesia machine from one company but the vaporizer from the other company. In order to mount the vaporizer to the anesthesia machine, it needs an adaptor and mounting bracket.

Q The next item is rebreathing reservoir bags. Although these are not manufactured by your company, I believe you

purchased these for retail sale; is that correct?

A That is correct.

Q Could you indicate what the function of this product is?

A If the breathing of a patient is intermittent, with a pause during the expiratory cycle, if you supply gas in a nonbreathing system, your bag will collect the gas flow during the expiratory cycle of the patient and supply sufficient gas down the inspiratory cycle. In the rebreathing system where the patient rebreathes a portion or all of the previously exhaled gas, the rebreathing bag will accept the exhaled gas from the patient.

Q The next item is anesthesia conducting tubes. I believe that reusable anesthesia conducting tubes are manufactured by your company, but not disposable tubes. Could you indicate what the function of this product is?

A It is a connection between the anesthesia breathing system. For example, inspiratory and expiratory valve of the system to the patient. Or, being more correct, the Y-piece of the patient's end.

MR. TOPKIS: Just a second. I doubtless, through inadvertence, I think Mr. Purcell's discussion has led the witness into error with that remark about reusable anesthesia conducting tubing being manufactured by Mr. Schreiber's company. According to Exhibit 315, which is for 1973 as opposed to 314, which relates to 1972, Mr. Schreiber's company

manufactured no anesthesia conducting tubes in 1973, although they manufactured ---

THE WITNESS: A small quantity.

MR. TOPKIS: -- a small quantity in 1972.

THE WITNESS: I think I will have to give an explanation. This is a handmade hose for anesthesia. Therefore, the small quantities tend to be inconsistent over the years. It is a very small business, and it is not available on the market. It is a handmade tube.

By Mr. Purcell:

Q In the next section is anesthesia airways, Document 314, it indicates that these were not manufactured by your company in 1972, but were purchased for resale. What is the function of this product?

A It is a piece to keep the airway of the patient clear.

Q The next item, anesthesia face masks, CX 314-G, indicates that veterinary reusable face masks were manufactured by your company in 1972.

A This is correct.

JUDGE BARNES: Mr. Purcell, I don't think we even have to state whether they are made or not made.

By Mr. Purcell:

Q What is the function of anesthesia face masks?

A An anesthesia face mask is a flexible component which is, at one end, connected normally to the Y-piece or the hose

delivering the anesthetic from the machine and the other side seals on the face of the patient not allowing the patient to breathe atmospheric air but clearly, or as good as possible, makes a patient breathe the gas from the anesthesia machine.

Q Are these face masks manufactured specifically for anesthesia?

A The one referred to in our document, yes.

MR. TOPKIS: Could I have the answer again, please?

THE WITNESS: The one referred in this document, yes, they are clearly used for anesthesia and no other purpose.

By Mr. Purcell:

Q Sir, the next item is connecting Y-pieces for face masks. Briefly, what is the function of that?

A In case of a rebreathing system, the patient rebreathes a portion of the previously exhaled gas. For this purpose, you need one connection for the gas coming from the anesthesia machine and one going backward to the anesthesia machines, which are two separate hoses. They both come together, close to the patient's airway and Y-piece.

Q The next item is adaptors and fittings, used in anesthesia machines. Could you explain what the function of those are?

A There are Y-pieces. They normally have an internal 15 millimeter connection, which is a standard. At times, you want to connect a mask which has a 22 millimeter connection. You need an adaptor in between. Or in the veterinary field,

there are old masks on the market which did not comply with today's standards. We need adaptors to overcome the difference in the old and new standards. That's about it.

Q The next item is carbon dioxide absorption canisters. What is the function of this product?

A In a rebreathing system, the patient reinhales all or part of the previously exhaled gas. The carbon dioxide has to be eliminated from the exhaled gas. This takes place in the canister, which contains a compound, which absorbs exhaled CO_2.

Q The next item is anesthesia flow meters. What is the function of this product?

A The gas anesthesia machine is contained in a gas cylinder of a high pressure. It is reduced to lower pressure. Depending on the size of the patient or the system of anesthesia which is performed, the anesthesiologist or the person administering the anesthesia requires different flows. In order to measure this flow, anesthesia flow meters are required to establish whatever flow you need.

Q The next item, anesthesia carts, what is the function of this product?

A I don't know. We don't sell any. I guess they are used to carry agents and syringes.

Q The next one is yokes, handscrews and valves.

A In the United States, gas cylinders are attached to

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anesthesia machines by means of yoke connection, which is a device which fastens the gas cylinder against the anesthesia machine and provides also for a noninterchangeability of the gases and is tied in to the anesthesia machine.

Q The next item is anesthesia ventilators. What is this product used for?

A In many cases during anesthesia, the lungs of the patient are paralyzed. The patient has to be artificially ventilated, which can be done by means of an anesthesia ventilator.

Q The next item is anesthesia respirometers.

A During anesthesia, it is also important to know the respiratory minutes involving a spontaneously breathing patient to give some indication of the level of anesthesia. Furthermore, during the artificial ventilation, it is necessary to adjust the ventilator so that a right and adequate respiratory volume is maintained. For both purposes, respirometers are used.

Q The next item is adaptors or respirometers.

A There are a limited number of manufacturers of respirometers. These units have to be adapted to all kinds of anesthesia machines used. Because we do not have a standard for this, adaptors are required to mount respirometers to different brands of anesthesia machines.

Q The next item is endotracheal tubes. Briefly, what is the function of this product?

A Endotracheal tubes are used ~~during~~ normally during ventilation to keep the airways free and ~~the~~ the connection between equipment and the patient's lung tight to the atmospheric surrounding air pressure.

Q Are there any other items in addition to those that we have been discussing which you consider to be inhalation anesthetic equipment and accessories?

A There are a few items which are in doubt if they belong or not to anesthesia. Laryngoscope blades, forceps. But they are used for preparation of anesthesia and not during the course of anesthesia.

Q To whom does your company market inhalation anesthetic equipment and accessory products?

A To dealers as well as direct to the end consumer.

Q Who is the end consumer?

A The hospital, anesthesia department in the area of veterinary, veterinary clinics or practicing veterinarians.

Q Is there generally one individual at the hospital that you deal with?

A In the direct selling approach, in many hospitals the chief of the anesthesia department will be the contact who makes the decision on equipment. In some hospitals, one staff member is assigned the duty to take care of equipment, and he will be the one I contact. This refers, now, to hardware and anesthesia equipment. Tubes may be sold through the

purchasing agent of the hospital.

Q In what area of the country does your company manufacture inhalation equipment?

A Pennsylvania.

Q In what areas of the country does your company market inhalation anesthetic equipment and accessories?

A All of the United States.

Q In 1972, what other companies in the United States manufactures and marketed inhalation anesthetic equipment and accessories?

A Ohio Medical, Forregger, Dupaco, Fraser Sweatman, Incorporated, Harris Lake is the manufactur of anesthesia equipment. North American Draeger, anesthesia ventilators. Bird Corporation, Puritan-Bennett, Air-Shields, Monaghan; tube, Rűsche Corporation, Portex and National Catheter.

Q Is Air-Shield a part of Narco?

A Yes.

Q Is Forregger a part of Air Products and Chemicals?

A To me, yes.

Q Is Anesthesia Associates?

A That is correct, I forgot them. Anesthesia Associates.

Q Of the companies you have identified, who are your competitors?

MR. T(KIS: In what, Your Honor? The witness has testified that he manufactures some things and sells others.

JUDGE BARNES: Okay, let's rephrase your question, Mr. Purcell.

MR. PURCELL: Mr. Schreiber, you testified that your company both produces and markets inhalation anesthetic equipment and accessories. Who do you compete with of the companies that you have identified in marketing of anesthetic inhalation equipment and accessories?

MR. TOPKIS: That is the same question. I have the same objection.

JUDGE BARNES: I will let him answer the question. Go ahead, Mr. Schreiber.

THE WITNESS: As far as anesthesia machines are concerned, we compete with Ohio, with Forregger, with Harris Lake, Fraser Sweatman, Incorporated, Dupaco. For 1972 or 1973?

MR. PURCELL: 1972.

THE WITNESS: We also compete as far as anesthesia breathing systems are concerned.

MR. TOPKIS: Excuse me. Before we leave anesthesia machines -- and I am sorry to press the objections perhaps beyond the point of tolerance -- but the witness is testifying about companies that both manufacture and sell anesthesia machines.

JUDGE BARNES: That is the way the question was asked. Is that correct?

THE WITNESS: Yes.

MR. TOPKIS: There are lots of other companies that don't manufacture but do sell them.

THE WITNESS: That is correct. May I state these are the brands of anesthesia machines that we are competing against, not necessarily the organizations.

JUDGE BARNES: These are the manufacturers?

THE WITNESS: These are the brands of anesthesia equipment we are competing against. This brand may be sold through any local dealer. We may compete organizationwide with the dealer. The dealer may sell the brands that are listed.

Is this acceptable?

MR. TOPKIS: Yes, that is fine.

THE WITNESS: The accessories is almost impossible to answer, because there are too many dealers around which handle all kinds of accessory lines. So, we may compete with the same product against another dealer just pricewise. That is very difficult to answer.

JUDGE BARNES: Mr. Schreiber, what do these dealers carry ordinarily? How many lines of products? What are they called?

THE WITNESS: It varies. They handle almost every line. There are dealers which handle only specific lines. Your Honor, both are possible.

JUDGE BARNES: Are they called medical supply dealers?

THE WITNESS: They may be anesthesia specialty houses, surgical dealers. They have all kinds of names. Normally, either the medical, surgical or medical will be in the name of the organization. Also, life-supporting corporations and so on.

JUDGE BARNES: What other products do they carry besides this anesthesia equipment? Do they carry crutches and wheelchairs?

THE WITNESS: Some of them may. Not all of them, but some of them may.

MR. PURCELL: Mr. Schreiber, who are your competitors in the production and marketing of inhalation anestnetic equipment and accessories?

MR. TOPKIS: I thought we just had that question asked.

MR. PURCELL: I will go on to the next question. Mr. Schreiber, based on your experience, could you estimate the total U.S. sales of inhalation equipment and accessories for the calendar year 1972 in the United States?

MR. WALKER: Your Honor, I object to this. Mr. Schreiber's answer can only be based on rumor, guesswork and hearsay.

JUDGE BARNES: I think we understand that. What is your objection, Mr. Topkis?

MR. TOPKIS: I will start with that. If forced to go

on, I can.

JUDGE BARNES: Well, I believe under the Papercraft case, the Commission has permitted estimates of the total market.

MR. TOPKIS: Your Honor, we read this much-cited Papercraft case over the weekend, and the Papercraft decision that my friends talked about last week and the ones that are reporter are so different as to be almost unrecognizable. For example, what did Papercraft really hold? It held that we are going to deny 551 subpoenaes. Why? Because you don't have to be such a nuisance to the universe. Unless you can show that there are no other ways to get the material, then you can have 551 subpoenaes. That is what Papercraft decided.

As Your Honor will doubtless recall, the Papercraft position taken by the people seeking the subpoenaes was quite outrageous. But more important, the basic thrust of the decision is that you have got to use good sense to putting together your market data. That good sense, I think, to begin with, for the reason that counsel for Mr. Schreiber articulated, requires that you do your best to get accurate information.

Now, as I understand it, complaint counsel have sought information from a whole lot of companies about what goes into the market here. To ask Mr. Schreiber over his counsel's objection to guess, I think is not good sense. Now,

in Papercraft, Your Honor will remember we had not only estimates, but we had a need to make estimates and read corroborating data. Therefore, census material, which admittedly required a little bit of adjustment which the complaint counsel, hearing examiner and Commission all adjusted in the interests of good sense. There were trade sources, trade information available. That, too, was relied on.

In short, you have got to put together a good sense mosaic, and the last element, the capstone, if you will, but the last element throughout the first is the estimate of people engaged in the trade about what other people engaged in the trade are doing.

For all of those reasons, I object to the witness being asked to answer these questions, which I might remind Your Honor, relate not only to products that he manufactures but to a lot of products that he has told us he doesn't manufacture as to which he, himself, is only a reseller of products made by other people. Some products that he neither manufactures or sells.

MR. WHOLLEN: If I may just add a few words, Your Honor. Also, complaint counsel are seeking to apply Papercraft to a situation where the very subpoena that they issued to which this witness responded had 15 separate subcategories, the last of which was called, "Other," which happens in this witness's response to be the largest category. In that

situation, I just don't think you can ask a witness to make that kind of estimate under the authority of Papercraft.

MR. THURMAN: Your Honor, in the first place, I don't think it is proper for counsel to object. He is to advise the witness.

But Papercraft had 21 primary, major competitors. Few of those 21 were called to estimate the size in the market, and of those 21, what percentage of that market they represent, which was 80 percent approximately. We are not doing anything else in this case. If we had to go out and get every little company that manufactures every little item, we would be here all year.

I appreciate Mr. Topkis saying use good sense in this case. I agree with it. That is why we are going this route. Using good sense, this is the best way without a census data to clear this record up and get an approximate universe and the shares of companies who the leader is, which is a company they are concerned with.

This man, as Papercraft says, these people in the business, they know approximately what it is. It is their business to know. We want to figure out what their market share is. If he doesn't make it, but handles it in the market, he can take the overall market, whether he produces or not. But if he is competing with these markets, certainly, if he wants to go into a product in that market which he is not

producing, he would want to know the sales of that product. He is interested in that. The overall market product in which he is competing for a particular market.

Certainly, he would know, in figuring out his market share, and where is is going and how he plans his future business to who comprises this market, the major companies, firms and what the estimated market value is.

JUDGE BARNES: Well, I am aware of the Papercraft decision. Also, I believe you have told me there are no census figures here. I realize you have to prove your case a step at a time and Mr. Schreiber's estimates will be only one piece of the mosaic. It may be not a very reliable one. We will have to see what he says. But you will have to rephrase your question, Mr. Purcell, precisely. At what level? At the manufacturing level, retail level to distributors, hospital level?

I think we have got to have a more precise question to put to him and see if he can answer it.

MR. TOPKIS: Could I remind Your Honor that this really has all been stipulated. We have advised complaint counsel, who have received responses to questionnaires such as this from a variety of companies, that we are willing to stipulate that those responses may be received in evidence. That, it seems to me, is the most persuasive reason to do so.

JUDGE BARNES: That is, certainly, the best evidence

for those companies that are called. But there may be companies that are not called.

MR. THURMAN: Your Honor, they are stipulating the companies that are called. Maybe we are making a mountain out of a molehill. The only reason -- if Mr. Topkis is saying these are the companies and you can take the total of these sales and this is what we are going to base the universe on, then we will dispense.

MR. TOPKIS: That is not what I said. I said I will stipulate to any company which seems they have received a report. The companies that are involved in this area.

JUDGE BARNES: Those figures will be in the record. They have done that. But then they want Mr. Schreiber to say what the total market is and then complaint counsel is going to argue what part of the total market they have covered. I assume that is going to be his position.

MR. TOPKIS: That they ought to let Mr. Schreiber fill in the gaps. Well, why?

JUDGE BARNES: Because I don't know of any better way.

MR. TOPKIS: They could have sent letters to every company in the field. This is no secret. They are listed in every medical catalogue in the country.

JUDGE BARNES: But I think Papercraft is a knowledgeable way to proceed with the witness. But I want a clear and

precise question.

MR. PURCELL: During calendar year 1972, Mr. Schreiber, at the production level, approximately what were the total sales of inhalation anesthetic equipment and accessories in the United States?

JUDGE BARNES: Mr. Purcell, before he answers his question, I assume you have got retail prices here in your sales figures you put in the record?

MR. PURCELL: That is correct.

JUDGE BARNES: You should get your total market on the same basis as you have your company figures.

MR. PURCELL: That is correct, Your Honor. The retail sale value of those items were manufactured and sold in the United States.

JUDGE BARNES: All right. Rephrase your question, then.

MR. PURCELL: Mr. Schreiber, based on your experience, for calendar year 1972, can you estimate what the retail sales were of those companies producing and distributing inhalation anesthetic equipment and accessories in the United States?

MR. TOPKIS: I object, Your Honor. I think that eliminates companies abroad that are exporting into the United States.

JUDGE BARNES: You should include that.

MR. TOPKIS: I think the question would properly

be -- I would object to it -- but I think part of my objection would be excluded if it were at the retail level, what were the total sales of inhalation and anesthetic equipment and accessories for the year 1972.

MR. THURMAN: Could we have the question read back?

JUDGE BARNES: Would you read it, please?

(The reporter read from the record as requested.)

JUDGE BARNES: When he said in the United States, he did not mean manufactured in this country, but sold in this country.

THE WITNESS: That question still cannot be answered, because this would mean the figure under which the manufacturers sold possibly to the dealer. This is almost impossible to estimate because many equipment from our company for Ohio will be sold to a dealer on a less 20 percent discount and then Ohio's price or any other discount to the hospital.

So, the question is very difficult to answer this way. You see, is the question directed to what was the accounts receivable in these companies, or what hospitals in the United States paid for this kind of equipment assistance.

MF. PURCELL: Excluding retail, what were the retail sales of those companies? What were the sales, accounts receivable?

MR. WHOLLEN: I will object to that. I don't know what he means.

JUDGE BARNES: I think you want to know on the manufacturer level what would be the total sales of inhalation therapy equipment.

MR. PURCELL: Anesthetic equipment.

JUDGE BARNES: Of manufacturers in the year 1972. This would include those manufacturers who have imported in the country and products manufactured in the country. The manufacturer level.

THE WITNESS: I will have to go on the record here that this is a guess with a wide possibility of being wrong. It is not backed by a lot of information, but my estimate for 1972 would be ---

MR. TOPKIS: Excuse me. Before you go any further, on the basis of the witness's honorable statement ---

JUDGE BARNES: I think he has placed his estimate in perspective.

THE WITNESS: $25 million for 1972.

By Mr. Purcell:

Q Could you estimate that for 1973?

A Close to $30 million in 1973.

Q Mr. Schreiber, of the companies you have identified, approximately what percentage of retail sales were accounted for in the United States by this company?

MR. TOPKIS: That just puts everything together in the wrong way. Really, we are going to have people from all of

these companies, I think, testifying. Besides, we have got certified statements from those who won't be testifying. So, how can we ask this witness to speculate about the sales of come competitors or others who aren't competitors?

JUDGE BARNES: I will let the witness answer the question as to who were the four largest manufacturers of inhalation anesthetic equipment in the United States in 1972. In your opinion.

THE WITNESS: I can state the first two. I cannot state the third and fourth. Ohio, I would consider No. 1, Forregger, I would consider No. 2. But I could not determine Fraser Sweatman, Harris Lake or Dupaco.

MR. TOPKIS: Was this limited to machines or the whole product range of inhalation anesthetic equipment?

THE WITNESS: Inhalation anesthesia equipment.

MR. TOPKIS: And accessories?

THE WITNESS: Correct.

MR. PURCELL: Mr. Schreiber, the companies you have identified, would those be the top five?

THE WITNESS: Top five, I would say yes.

MR. PURCELL: Approximately what percentage of sales was accounted for by these companies?

JUDGE BARNES: We are going to get their actual sales.

MR. PURCELL: In 1968, Mr. Schreiber, what amount of capital was required by North American Draeger to enter

into the manufacturing and distribution of inhalation anesthetic equipment and accessories in the United States?

MR. TOPKIS: In 1968?

MR. PURCELL: In 1968, Your Honor.

JUDGE BARNES: At this time, we will take a ten-minute recess.

(Whereupon, at 11:15 a.m., a brief recess was taken.)

JUDGE BARNES: On the record. All right, Mr. Purcell.

MR. THURMAN: Your Honor, before we proceed, may I ask if there are prospective witnesses in the room who are not employees of BOC or AIRCO?

JUDGE BARNES: You may ask.

MR. THURMAN: I would ask to know.

MR. TOPKIS: And subsidiaries. We don't have.

MR. WHOLLEN: I would like to introduce Mr. Cosegrove of the Ohio Medical Division of AIRCO.

JUDGE BARNES: All right, Mr. Purcell.

By Mr. Purcell:

Q I will repeat the same question I asked just before the break, Mr. Schreiber. What amount of capital was required by North American Draeger in the manufacture and distribution of inhalation anesthetic equipment and accessories during 1968?

MR. TOPKIS: Excuse me. I take it the company was

set up in that year?

JUDGE BARNES: He said he was president in 1968. I don't believe he stated how old the company was at the time.

MR. PURCELL: I believe he testified, Your Honor.

MR. TOPKIS: I think your notes are right, but I think the fact is that the company was also set up in 1968.

JUDGE BARNES: Is that correct?

THE WITNESS: That is correct.

MR. TOPKIS: But unless the witness testifies that that is the only business that the company engaged in, I don't see how he can answer the question, unless it is fined down a little bit more.

JUDGE BARNES: That is correct. Can you rephrase the question?

By Mr. Purcell:

Q Mr. Schreiber, earlier this morning you testified your company was in the business of both production and resale for both inhalation anesthetic equipment and accessories and inhalation therapy respiratory cares equipment and accessories; is that correct?

A Yes, that is correct.

Q Are there any other products produced and resold by your company other than those two lines of products?

A Were or are?

Q Are.

A No.

MR. TOPKIS: Which is it, were or are?

JUDGE BARNES: Were they in 1968?

THE WITNESS: There was an attempt made in the diving field and in the welding field. But these lines were discontinued after, approximately half a year.

JUDGE BARNES: In 1968, did you import equipment from Germany, or was everything manufactured here?

THE WITNESS: No, we did import equipment from Germany.

MR. PURCELL: What amount of capital was required ---

MR. TOPKIS: I don't understand this required word. If he wants to know how much was invested, that is a reasonable question. But required is an entirely different matter.

JUDGE BARNES: How much was invested might be a better question.

By Mr. Purcell:

Q How much was invested?

A There was $27,000 in cash invested.

Q Were they loans?

A There were no loans obtained, no.

Q Did you receive any help from Dräger Werke in Germany?

MR. TOPKIS: Generous credit terms.

THE WITNESS: That is correct. We did at the

beginning. We were also unable to pay our bills for quite a while.

By Mr. Purcell:

Q How much was the line of credit?

A There was no established line of credit. But we were indebted to Dräger in the vicinity of a quarter of a million dollars after about one year.

Q You are going to start North American Draeger today. If anyone was going to enter into the production and distribution of these products today, can you estimate what would be necessary?

A It is my personal estimate, from my experience, I would not try to do it again for under half a million dollars. May I add something to this question?

That would be the investment in the company having a supplier on preferable and exclusive base on high sophisticated components as we have at Draeger may include a credit line of a bank.

Q Mr. Schreiber, what degree of technology, if any, is needed to enter into the manufacturing and distribution of inhalation anesthetic equipment and accessories in the United States?

A In my personal opinion, basic knowledge of mechanical engineering, solid background of experience in the field of medical field of anesthesia, which can be obtained by a long

contact with hospitals -- not necessarily from medical school -- and knowledge of administration in the company, production knowledge and marketing knowledge.

Q Is a sales force essential in marketing inhalation anesthetic equipment and accessories in the United States?

A I would like to answer yes.

Q How about a service force, people who service the product?

A I also would like to answer this with yes.

Q Can you explain why a sales service force would be necessary?

A In the case of direct sales to the hospital, the company has to make personal direct calls on the hospital to demonstrate and introduce the equipment. In case of sales through dealers, in many cases a dealer requires the assistance of a representative of the company, at least during the first course and during the training period and period of introduction of a new piece of equipment.

So, once again, a representative of the company has assisted a dealer in the first period.

Q Can you explain as to the necessity of the service force?

A The question of service is one of the major questions for the decision of what kind of equipment to purchase by hospitals. So, the purchaser, in many cases, will ask a question, how do you back up your equipment? By service.

He will sign a service contract with a service call on a regular basis.

Q Are customers, such as hospitals, generally willing to purchase a new line of inhalation anesthetic equipment and accessories from an established company?

MR. TOPKIS: Objection, Your Honor. Until there has been testimony as to what new lines have been introduced and whether this witness has had any experience in trying to sell them, I don't think we should go into that.

JUDGE BARNES: I think you should have some background questions here. I think Mr. Schreiber entered this business in 1968. He was in the business of another company, I guess, before that. Give us some background questions.

By Mr. Purcell:

Q Mr. Schreiber, since 1968, have any new products in inhalation anesthetic equipment or accessories been introduced by North American Draeger in the United States?

A Yes, sir, there have been new products. Our anesthesia machine has been introduced since 1968.

Q Did you have any difficulty in introducing this product?

A Yes, we did. We had difficulties to introduce the product.

Q Can you explain?

A The major difficulty is to build up the name and the image of the company and the reputation of the company. After

the name is established, then it is possible for new lines of equipment. That sounds a little bit confusing. May I explain that in a little bit more detail?

By referring to our specific case, the name Draeger has been known in anesthesia for over 70 years. Loosely in this country by international trade shows and by the exchange of hospital personnel. The market was entered by us by smaller accessories, establishing the name after a year and later on introducing a little piece of equipment after the name was known like other products, anesthesia machine.

Q How important is trade advertising and promotions in introducing a new line of equipment?

A I think it is essential to selling, to advertise in magazines and go to trade shows or to trade shows means meetings of the societies of anesthesiology.

Q Mr. Schreiber, do companies with a full line of inhalation anesthetic equipment and accessories have any marketing advantages over companies that don't have a full line?

A Yes, there is certainly an advantage with a full-line.

If I have only selective products in this field, the expenses per call of the salesmen at the hospital are higher.

For example, if some salesmen represent only one anesthesia machine, he may call for one year without making any sales. While when he has a full line with a lot of smaller accessories, he may at least cover the cost of his call

by just selling a few small accessories. So, the costs for selling are higher on a limited line.

Q Mr. Schreiber, are you familiar with the Z-79 Committee?

A Yes, I am.

Q What is it?

A It is a committee which works for the American National Standard Institute with the attempt to draft standards, respiratory terminology, anesthesia equipment, inhalation equipment.

MR. TOPKIS: I am sorry?

THE WITNESS: Anesthesia equipment, respiratory terminology and tubes.

MR. PURCELL: Have you ever done any work with this committee?

THE WITNESS: Yes, I did.

MR. PURCELL: Could you briefly explain ---

MR. TOPKIS: Explain what?

MR. PURCELL: What work you have done with this committee?

THE WITNESS: The attempt is made internationally to draft standards which refer to this kind of equipment, like anesthetic equipment, as far as connections are concerned, to give the possibility of safe interchangeability. The International Standards Organization, ISO, and the American part of it working in this is the Z-79 Committee, which

consists of anesthesiologists on one side and manufacturers on the other side.

My personal work was helping to draft these standards on anesthesia machines, and in the early stage on ventilators.

By Mr. Purcell:

Q Are you familiar with legislation presently before the U.S. Congress?

A Yes, I have knowledge of it.

Q Which legislation is that?

MR. TOPKIS: Objection, Your Honor. I would imagine that any bill that is before the Congress Your Honor could take judicial notice of. I would imagine, also, that any bill that has not been enacted into law would have very little pertinence here.

JUDGE BARNES: Mr. Purcell, what is the relevance of this?

MR. PURCELL: Your Honor, if I might be permitted to ask the next few questions, I believe that this line of testimony will show that if this bill is in fact enacted, that makes it more difficult to enter this particular market. The fact that it is pending may probably make entry into this market more difficult.

MR. TOPKIS: Your Honor, there has been a bill introduced in the House of Representatives every session for

the last hundred years proposing to put the United States on the metric system. Last week it failed again, for the fiftieth time. I don't think its introduction, even voting on it, proves that we are going to the metric system.

JUDGE BARNES: Is that the purpose of the question, to change to the metric system?

MR. PURCELL: No, Your Honor. The purpose of the question is to show the fact that it is pending is widely known by people in the industry and that it is taken into consideration by them, into decision as to whether or not to enter into the production of anesthetic inhalation equipment or introduce a new line.

JUDGE BARNES: Or what?

MR. PURCELL: Introduce a new line of equipment, Your Honor.

JUDGE BARNES: That is very speculative, Mr. Purcell. Bills are introduced in Congress daily. They may become law in a different form. I think it is too speculative.

MR. PURCELL: Your Honor, this bill was passed by the Senate and is presently before the House of Representatives.

MR. TOPKIS: The copyright form has been there for the past eight years, from my own personal, bitter recollection.

JUDGE BARNES: I think that line of questioning is too speculative, what legislation may be enacted.

MR. PURCELL: Your Honor, if I might be permitted to request permission to ask one question as to whether or not, in Mr. Schreiber's opinion, this bill would have any effect, if pending ---

MR. TOPKIS: Objection.

JUDGE BARNES: That is not going to help me unless I know what the bill is about. I might have to analyze the bill myself to see if I agree with it.

MR. PURCELL: Your Honor, I just hope to show the fact that its pending has some significance and effect.

JUDGE BARNES: You may ask him if it has significance.

MR. TOPKIS: Could we by chance know what bill it is?

MR. PURCELL: For the record, Your Honor, I would like to identify Bill S.2368 93rd Congress, Second Session in the House of Representatives on February 5, 1974, referred to the Committee on Interstate and Foreign Commerce Citation Act, may be medical device amendments of 1973. The purpose of the introduction of this act is to ammend 21 U.S.C. 321, Federal Food, Drug and Cosmetic Act.

JUDGE BARNES: Are you familiar with that legislation, Mr. Schreiber?

THE WITNESS: I know the bill, yes.

MR. TOPKIS: Does counsel have a copy? Might we be supplied with one?

MR. PURCELL: Mr. Schreiber, are you familiar with that legislation?

THE WITNESS: I know about this bill, yes.

MR. PURCELL: Do you have an opinion?

THE WITNESS: The bill, if it becomes law, would possibly require the premarket approval of medical devices.

JUDGE BARNES: Like a new drug mix?

THE WITNESS: That is correct.

MR. PURCELL: By whom?

THE WITNESS: It is under the supervision of the Food and Drug Administration. How the premarket approval will be obtained is not clearly identified today. It could be separate institutes which will do this, or it can be that premarket approval has to be obtained by universities.

MR. PURCELL: Would your company be affected by the act?

THE WITNESS: Yes.

MR. PURCELL: Would the other anesthesia companies you have identified be affected by this act?

THE WITNESS: Yes.

MR. PURCELL: Do you have an opinion as to whether or not this act may have an affect on new companies who would want to produce or market these products in the United States?

MR. TOPKIS: Objection.

JUDGE BARNES: I think we know a little about this

legislation. There have been a number of drug companies that have to get Food and Drug approval.

MR. PURCELL: Would this bill make it more difficult?

MR. TOPKIS: Objection.

JUDGE BARNES: I think that is an objectionable question.

MR. PURCELL: Mr. Schreiber, would the very fact that this is pending before the Congress have any effect?

MR. TOPKIS: Objection, Your Honor.

JUDGE BARNES: I think you are going a little far afield.

MR. PURCELL: I will move on, Your Honor.

JUDGE BARNES: All right. Thank you.

MR. PURCELL: Mr. Schreiber, is there any risk, financial risk, involved in introducing a new line of equipment by North American Draeger?

MR. TOPKIS: Objection, Your Honor.

JUDGE BARNES: I assume there are some risks.

MR. TOPKIS: I will so stipulate.

MR. PURCELL: Could you explain what risks, Mr. Schreiber?

MR. TOPKIS: I object.

JUDGE BARNES: What is the purpose of this line of questioning? I assume there are risks with every new product.

MR. PURCELL: Your Honor, my main purpose of this line of questioning is to show that there are risks involved, and they may well be more difficult than in 1968 when North American Draeger was started.

MR. TOPKIS: I object.

MR. PURCELL: Your Honor, additionally, this line of questioning hopes to show barriers to entry into this market is more difficult.

JUDGE BARNES: All right, I will let you proceed. But you have got to make your questions a little more specific then. Are there any risks involved? You have asked him about capital requirements and technology, equipment, marketing, servicing requirements. What risks are there beyond that? What is needed beyond that?

MR. PURCELL: Your Honor, I am going to move on to my next line of questions.

By Mr. Purcell:

Q Mr. Schreiber, are you familiar with products manufactured and distributed by British Oxygen Company and their subsidiaries?

A To a certain extent, yes.

Q Are any products in the area of inhalation anesthetic equipment and accessories manufactured by any of the BOC subsidiaries in the United States?

MR. TOPKIS: Objection, Your Honor. What we manufacture is a matter of record and can be established in a

much more precise fashion than from Mr. Schreiber who, however familiar he may be with our operations, is not quite so familiar as other people sitting in the room who run those companies.

JUDGE BARNES: Are these background questions, or what do you have in mind, Mr. Purcell? I believe you listed Fraser Sweatman and Harris Lake as competitors. Fraser Sweatman and Harris Lake as his competitors.

MR. PURCELL: That is correct, Your Honor. I will move on to my next line of questioning.

By Mr. Purcell:

Q Mr. Schreiber, you indicated earlier that Ohio Medical was one of the two largest producers of inhalation anesthetic equipment and accessories. Are they the largest?

A In the United States?

Q Yes.

A Ohio and Forregger.

Q Is Ohio the largest?

A Yes.

Q How long have they been the largest?

A I don't know. Since I am in this business, they are.

Q When was that?

A 1966.

Q You indicated earlier that your company was in the business of also producing inhalation therapy equipment and

accessories. Could you explain your understanding of that term?

A I would also like to call the equipment -- we are supplying and manufacturing equipment for respiratory care instead of inhalation therapy. We resell a piece of equipment called a lung ventilator, which is used for artificial ventilation, long-term ventilation of paralyzed patients.

We also, as it was mentioned before, sell volume measuring device which is used in combination with ventilators in order to measure the respiratory minute volume of the patient. For use ourselves adaptors to adapt this unit to different brands of ventilators.

Q What is the difference between inhalation therapy equipment and inhalation anesthetic equipment?

MR. TOPKIS: I think the witness has defined both. Don't they speak for themselves?

JUDGE BARNES: Perhaps there is a major difference that he can state and should know.

THE WITNESS: Inhalation anesthesia is a treatment of the patient resulting in freedom of pain, sleep and paralyzation which is obtained by administering different agents for normally a shorter period of time. Respiratory or inhalation therapy is the treatment of the patient's respiratory care. It is the treatment of a patient with insufficient spontaneous breathing to support the gas exchange

in the lungs of this patient by ventilating the lungs, keeping the lungs free of secretion. Inhalation therapy may be a treatment which is given to a patient as a result of emphysema or similar disease for several hours per day or per week in order to help this patient to breathe.

That is as close as I can come with an explanation right now.

By Mr. Purcell:

Q Mr. Schreiber, are there any marketing differences?

A The department in the hospital may be different. The respiratory care department or anesthesia department or inhalation therapy department may be under the supervision of anesthesia, but also under the supervision of a medical department. You are basically calling on different people.

Also, the ratios are different and magazine advertisement is different for different areas.

Q Mr. Schreiber, you indicated this morning that respirometers can be used for both anesthesia and therapy purposes?

A That is correct.

Q Are adapters required to change respirometer use from one area to another?

A They may, but not necessarily.

MR. PURCELL: Excuse me. Can we take a five-minute recess. I have just a few more questions of this witness.

JUDGE BARNES: Three minutes, maybe.

(Whereupon, at 11:50 a.m., a brief recess was taken.)

JUDGE BARNES: On the record. Are you ready?

MR. PURCELL: Your Honor, I have no further questions at this time.

JUDGE BARNES: Are you ready for cross?

MR. TOPKIS: Mr. Kaplan will examine, with Your Honor's permission.

MR. KAPLAN: First of all, if I may have any Jencks material on this witness, I would appreciate it.

MR. PURCELL: Your Honor, these are all the materials.

JUDGE BARNES: None of this material seems to fall into the Jencks Ruling.

XXXXX

CROSS-EXAMINATION

By Mr. Kaplan:

Q Mr. Schreiber, I think you testified earlier that dental analgesia equipment would fall under the major category of inhalation anesthesia equipment; is that correct?

A It could be, yes.

Q Do you regard it as being in the field of inhalation anesthesia equipment?

A I don't think that I am authorized to make this judgment. Anesthesia could be considered subdivision of analgesia. It is a freedom of pain which is part of anesthesia. But I don't think I am authorized to make a judgment on that.

Q Do you have a personal opinion?

A No, I don't.

Q You don't have a personal opinion one way or the other on that opinion?

A No.

Q Now, analgesic equipment, of course,is sold to dentists, is it not?

A Correct.

Q Is it used in hospitals?

A May I talk to my counsel?

JUDGE BARNES: Yes, you may.

MR. WALKER: Your Honor, I think the witness has testified previously that his company is not in the field of dental anesthesia. So, he is only speaking from his understanding, from what his understanding of the market is.

JUDGE BARNES: I believe that is the way the question was directed. If he does have an understanding, he may answer.

THE WITNESS: Would you please repeat your question?

By Mr. Kaplan:

Q Yes. Is dental analgesia equipment sold to hospitals?

A It is my understanding to dental schools, yes.

Q To dental schools?

A Right. Or dental departments in hospitals, if they are in existence.

Q In any event, it is sold to anesthesiologists; is that correct?

A There may be anesthesiologists which specialize in dentist analgesia.

Q It is not a common practice?

A I couldn't answer this question.

Q Do you regard dental analgesia equipment as being competitive with anesthesia machines that you produce for human use?

A No.

Q Do you take into consideration, in pricing your anesthesia equipment, what the prices of dental analgesia machines are?

A No.

Q The prices of dental analgesia equipment doesn't affect demands in the human anesthesia machine arra, does it, from your experience?

A Not from my experience, no.

Q Now, let's talk for a moment about the veterinary anesthesia machines. Those of course, I assume, are sold to veterinarians?

A Correct.

Q They are not sold to hospitals that treat humans; is that correct?

A Maybe to research departments in hospitals.

Q Those that are sold to such hospitals, they are used on

experimental animals, are they not?

A That is correct.

Q They are not used on humans?

A In general, no.

Q You don't regard veterinary anesthesia machines as competitive with the machines that you manufacture for human use, do you?

A Yes, I do. You can sell human anesthesia machines to veterinarians, which is quite frequently done.

Q You can sell human anesthesia machines ---

A To veterinarians.

Q I see. But you can't sell veterinary anesthesia machines to anesthesiologists for use on humans, can you?

A You can try. It is a perfect anesthesia machine.

Q Let me put it this way. To your knowledge, has any veterinary machine that you have sold been used on a human?

A Yes.

Q How many times has that occurred, as far as you are aware of?

A I don't know. I can't answer this question. Very insignificant. Less than one percent.

Q Would the same be true of human anesthesia machines used on animals?

A That would have more.

Q Could you give us some sort of estimate as to the frequency

of which that happens?

A Per case or per unit in use?

Q Per unit in use.

A Less than 10 percent, maybe less than 5 percent.

Q Are your human anesthesia machines priced higher or lower than veterinary machines?

A Human anesthesia machines are higher.

Q In percentage terms, what is the differential? How much higher?

A That is difficult to answer. There is a wide range of veterinary anesthesia machines. Highest priced, middle or lowest price in order.

Q Let's take, first of all, the lowest priced model for each line.

A Ratio of approximately one to two.

Q The highest model?

A Once again, possibly the same range.

Q In your experience, do the prices of veterinary anesthesia machines affect your pricing decision on human anesthesia machines?

A Yes. In this respect, the highest priced model of a veterinary machine is a stripped down human anesthesia machine.

Q That is to say that you are pricing the same thing at some types?

A Yes, sir.

Q But you don't regard the prices which some other manufacturer may set for veterinary machines as having an effect on your ability to sell human anesthesia machines that you manufacture?

A No, I don't.

Q Now, I believe on direct we learned that respirometers that are manufactured by North American Draeger can be and are used both in inhalation anesthesia applications and inhalation therapy applications; is that correct?

A May I correct you? There are no respirometers manufactured by North American Draeger.

Q I am sorry. Sold by North American Draeger. Then those respirometers are used for both inhalation therapy and anesthesia application; is that correct?

A That is correct.

Q That is also true of other prices which are in the inhalation anesthesia section of Complaint Counsel's Exhibit 315, your 1973 sales figures, is that right?

A It may be correct on some accessories, yes.

Q In particular, I think you mentioned that the face mask that North American Draeger sells, the inhalation anesthesia face mask, you can say with certainty were not used for inhalation therapy; is that right?

A Right.

Q But other anesthesia face masks made by other manufacturers can be used for inhalation therapy; is that correct?

A I am not exactly sure about my statement here. But an anesthesia face mask has an electric conductive, because of the close combination which may assist in the operating room. A face mask for inhalation therapy does not necessarily require this feature. There is a distinct difference between the two.

It is my personal opinion that there is too much overcrossing. Maybe, I don't know. Our organization is not very strong in this specific field.

Q But a conductive anesthesia face mask, from a technical point of view, could be used for equal facilitation for inhalation therapy?

A I would say yes.

Q That is also true of anesthesia tubes, is it not? They have applications in the inhalation therapy field?

A They are limited applications, yes.

Q The principal difference between the tubing used in one field and the other is this factor of conductivity, is it?

A No, not on the -- we have to specify now what tubing we are talking about. Are we talking about the tubing between equipment and the connection piece of the patient, or the connection tubing used for inter-patient for tracheotomies?

Q Let's take the exhibit you have prepared here.

A This is corregated tubing there.

Q You have Exhibit 315, and I am looking at page 1, which is 315-B. The category is called Anesthesia Conducting Tubes.

A Yes.

Q What are those?

A Same limitations as on the mask. It is a question of conductivity, which makes it also expensive to use the same tubing. But it is definitely used in the same field.

Q Are there other products that are listed on Exhibit 315 as inhalation anesthesia equipment which can be used for inhalation therapy?

A I believe you could use an airway for both. A Y-piece under certain circumstances can be used for both applications. Are we talking about the rare exceptions or if it is possible or what is done on a percentage base lower than five percent?

Q The question was, what is possible?

A What is possible?

Q That is correct.

A In the case of an emergency, a ventilator could be used to ventilate a patient.

Q That would be infrequent?

A Very infrequent.

Q The other applications that you gave us as being usable

in other fields?

A It is not very intelligent, but it is done.

Q Not intelligent from a economic, rather than a medical standpoint?

A That is right.

Q Are there any other products on the anesthesia part of Exhibit 315 that can be used for inhalation therapy?

A O_2 meters can be used in both areas.

Q By that you mean oxygen meters?

A Yes.

Q The oxygen meter does what? Does it measure the ---

A Measures inspiratory or expiratory oxygen concentration in the gas.

Q So, it measures the concentration as a percent of volume?

A A percent of volume.

Q Anything else?

A Laryngoscope used in both areas.

Q Perhaps you could explain to us what a laryngoscope is.

A Laryngoscope is a device which assists the anesthesiologist or the medical profession in passing an endotracheal tube into the patient.

Q Are there products in the inhalation therapy section of Exhibit 315 that can be used for inhalation anesthesia applications?

A Referring to page?

Q I believe it begins on page 9.

A On very rare occasions, humidifiers may be used for anesthesia.

Q You, in fact, sell a humidifier that is used in conjunction with your anesthesia machine, do you not?

A It may be called a humidifier. But it is actually a heat exchanger. It is not a humidifier which actively vaporizes water. It is a humidifier which determines the exhales humidity.

Q I am looking at a brochure, "NARKO Med."

A It is a humidifier, a better word.

Q Respiratory air humidifier?

A That is correct.

Q Are there any other products on the inhalation therapy in this exhibit?

A Inhalation therapy delivery tubing could be used, vice versa, as we stated before. Inhalation tube in the inhalation therapy could be used vice versa.

Q If that irrespective of whether it is conductive tubing or not in this case?

A If the operating room and facility are classified as nonflammable anesthetizing locations, it is possible to use nondonductive tubing.

Q I see. So, in some operating rooms, it is not necessary to use conductive rubber and plastic products?

A Well, theoretically, yes.
Q Are there any other products in the inhalation therapy section of 315 that can be used for anesthesia purposes?
A We have, once again, a respirometer. We have listed bacteria filters. However, bacteria filters definitely cannot be used. But there may be some which can be used in both areas.
Q Any others?
A There is some question which I am not really authorized to answer. The one under cap A small e. Catheters may be possible under circumstances.
Q You just don't know?
A I just don't know.
Q I believe you said that North American Draeger sells some of its equipment through dealers and some direct?
A That is correct.
Q You sell human anesthesia equipment through both dealers and direct sales; is that right?
A Correct.
Q And you sell all your veterinary equipment through dealers?
A With some exceptions, yes. Some veterinary schools or hospital accounts.
Q Is there some particular part of the country where your human anesthesia equipment sales are handled directly by you?

A Roughly between Washington and New York City. On the East Coast, we try to handle direct. Then there are some house accounts which are universities where we sell direct.

Q You sell some of your equipment to Government agencies from time to time?

A On rare occasions, yes.

Q So, you have bid on requests for proposals for anesthesia equipment?

A In general, most equipment sold to a hospital goes through bids, not only the Government.

Q I see. So, a great deal of your business is done through bidding?

A That is correct.

Q In selling to dealers, would I be correct in assuming that you could typically sell at some discount?

A There are discount schedules and dealer price lists.

Q Do you also sell any of your products to original equipment manufacturers?

A That is correct.

Q How do you price them? I am not asking for prices. But how do those prices relate to bid prices?

A They are separately, normally, calculated. There are two different categories. One is an exclusive production of an item for another company which they request to purchase from us exclusively. This would be priced with the normal profit

margin. Other equipment is mostly sold under normal discount schedules.

Q In these sales to original equipment manufacturers, you are selling at a percentage discount from list, again?

A That is correct.

Q But it is a different percentage than the percentage you sell to dealers?

A Not to my knowledge, no. I can only remember one occasion when two other manufacturers, one order which specifically was imported from Dräger for this purpose. But in general, no, it is a normal discount schedule.

Q Some of your direct sales are made at list?

A That is correct.

Q So that the sales figures that you have included on Exhibit 315 and 315 include sales which were made at list; is that correct?

A Right.

Q They include sales that were made at dealer discounts?

A Correct.

Q Competitive bidding?

A That is correct. That is the actual sales taken from the figure taken from the invoice.

Q What was the $25 million estimate that you gave us earlier? Was that total retail sales of all anesthesia equipment?

A The question was asked, the sales of the manufacturers.

I was referring to the manufacturers.

Q You understood the $25 million number to be sales of manufacturers in the United States?

A That was my understanding. The question was read several times, rephrases and reasked. This question contains a double sales, possibly of certain items. Because certain products are sold twice.

Q It does not contain sales by foreign manufacturers in the United States?

A It was included.

Q It was included?

A It was included. Original manufacturers and foreign sales.

Q I thought I understood you to say you understoc the question to be sales by the manufacturers you had named. Am I correct in that?

A Right.

Q And there are foreign manufacturers of anesthesia equipment selling in the United States?

A Yes.

Q So that $25 million was, to the best of your estimate, of all inhalation anesthesia equipment and accessories sold in the United States?

A Yes.

Q Irrespective of where the products were made?

A Okay.

Q Strictly speaking, if we were to compare the sales figures which you have given to us in Exhibits 315 and 315 with that $25 million figure, we would be comparing apples and oranges? The $25 million figure is retail level pricing?

A No.

MR. PURCELL: Objection, Your Honor.

JUDGE BARNES: He said no.

THE WITNESS: No, it is the same base. It is our figure. We sell either to dealers or it is our -- I have to explain the procedure. The computer takes all entries, and each item on one run and each customer on the other run. The computer lists the total sales. Now, if this customer, for example, the one customer pays a list to the computer called list price, the dealer price on a discount on the computer lists the actual value, the dollar average the dealer pays for it. That is our sales at North American Draeger, excluding stock return.

This was the same procedure, in my estimate.

By Mr. Kaplan:

Q I see. All right. I am glad you have that clarified, if nothing else.

Now, on Exhibit 315 on page 7, I believe you listed a number of other products that were not included in the specifics of the subpoena you received as being inhalation anesthesia equipment, such as anesthesia analyzers. What is

an anesthesia analyzer?

A North American Draeger sells a piece of equipment which measures respiratory concentration, anesthetic concentration in the expired gas of the patient which analyzes practically the anesthetic.

Q For what purpose would an anesthesiologist use that piece of equipment?

A There are various purposes. One purpose would be to control anesthesia with it. Certain expiratory concentration indicates a certain alveolar concentration, and by that, a certain level of anesthetic is absorbed in the brain tissue. That would be one purpose.

The other purpose would be to test the unit in order to check the accuracies of his vaporizers.

Q Anesthesiologists keep very close track on the condition of patients while he is under anesthesia; is that correct, and your equipment is designed to suit that need?

A No. Our equipment, basically, is designed to administer anesthesia as an active tooling by the anesthesiologist. The record contains more data about the results which will be obtained by administering anesthesia.

MR. KAPLAN: I am sorry, Your Honor. Could I have the rest of that answer?

JUDGE BARNES: Would you read the answer, please?

(The reporter read from the record as requested.)

THE WITNESS: Do you want me to give an explanation of that?

By Mr. Kaplan:

Q I didn't understand what you meant by the the words, contains more data about the results.

A The anesthesiologist will state the stage of anesthesia, blood pressure, heart frequency, breathing efficiency. These are not parameters which we give the patients. These are the results of the anesthesia.

Q I think I understand your statement now. One of the features you build into your equipment is the ability for an anesthesiologist to keep track of the level of anesthesia so that he may administer what he regards, in his medical judgment, as the proper amount of the anesthetic agent?

A To a very small extent. We are talking about two different things. Number one, the anesthesia machine administering anesthesia to the patient and the feedback from the patient to the anesthesia machine. Now, the major part of the anesthesia machine is the active part. We are not very strong in the feedback loop. That means monitoring equipment.

Q I see. Your characterization of Draeger is that Draeger is not technically strong in the feedback loop; is that what you mean?

A I am afraid the whole industry is not very strong in that.

Q But the industry does and make an attempt to work with that feedback loop?

A Increasingly, yes.

Q There are various kinds of monitoring and measuring devices that are manufactured and sold by companies that make anesthetic equipment; is that right?

A That is right.

Q And in fact, you sell anesthesia analyzers?

A That is correct.

Q And you sell oxygen meters?

A Oxygen meters, right.

Q You sell respiratory pressure gauges?

A That is correct.

Q You sell as an accessory to your anesthesia machine a blood pressure gauge?

A That is correct.

Q And an anesthesiologist who was concerned with the blood pressure of his patient wouldn't have to buy a Draeger machine with a Draeger blood pressure gauge. He could have another blood pressure gauge; is that correct?

A That is correct.

Q Did your $25 million figure include sales of blood pressure gauges, generally?

A That includes it.

Q In including sales of blood pressure gauges, you had to

make some kind of estimate as to proportion of blood pressure gauges which were used for anesthesia and the proportion that are not, correct?

A Right.

Q What information did you have that prompted you to make that kind of estimate? For example, do you know the total sale of blood pressure gauges in the United States for 1972?

A I stated my figure was an absolute guess without any data. So, I have no datas on the blood pressure gauge sales in the United States.

Q We have the same problem of allocating equipment for many other items in that $25 million figure?

A That is correct.

Q I don't mean to be critical. I am trying to expose the basis of your guess, which we have to do. But you don't have information on the total sales of any of the others of these items of interchangeable equipment, some of which may be used for anesthesia purposes and some of which aren't, do you?

A I have no information.

Q Apart from blood pressure gauges and anesthesia analyzers, there are still other items of medical equipment that we haven't heard anything about here today that an anesthesiologist uses in conjunction with administering anesthesia, aren't there? For example, an anesthesiologist might well use a cardiac monitor?

A He may, yes.

Q He might well use a stethescope or similar instrument?

A He will, almost in every case.

Q Those devices would be used for the same general purpose that of providing feedback to the anesthesiologist on the effect of anesthesia, as the anesthesia analyzer might be?

A Correct.

Q Did your estimate of the total market for inhalation anesthesia equipment include all of these various kinds of monitoring devices?

A To the best of my knowledge, it did.

Q Again, these are instruments or pieces of equipment with multiple uses in the medical field?

A That is correct.

Q This is another instance where you had to make some rough allocations, as best you could, in arriving at your estimate; is that correct?

A That is right.

Q Now, apart from the sales that are listed on Commission Exhibits 314 and 315, did Draeger have any other sales of any other types of products in 1972 or 1973?

A In the United States?

Q Let me restrict my question to North American Draeger in the United States, yes.

A There were a small percentage of rental of equipment.

Q Rental?

A Yes, and repair sales, service contracts.

Q But you don't manufacture or sell any kinds of equipments that are not on Exhibits 314 and 315; is that right?

A No.

Q Now, are you aware of the existence of other products that are used for inhalation anesthesia or for inhalation therapy that are not specifically listed on the subpoena specifications that you used in compiling Exhibits 315 and 315?

A Nothing of significance.

Q In manufacturing your anesthesia machines, North American Draeger produces some of the components and buys others; is that right?

A And contracts out.

Q So, you have three sources: You manufacture, contract out and you buy?

A Right.

Q For example, you import the anesthetic vaporizers from Dager Werke?

A That is correct.

Q And there are a number of different brands of anesthesia vaporizers available in the United States today, are they not?

A That is correct.

Q In addition to Draeger, there are Forregger, Cyprane vaporizers and Penlon vaporizers.

A That is correct.

Q There may be others?

A Yes, there are.

Q Another component of an anesthesia machine is a flow meter; is that right?

A That is correct.

Q For the North American Draeger machine, you purchased flow meters?

A We do.

Q There are a number of flow meter manufacturers in the United States from whom flow meters are available; is that correct?

A That is right.

Q Similarly, there are flow control valves in the anesthesia machines which you purchase?

A That is right.

Q There are a number of valve manufacturers selling in the United States today from whom such valves can be obtained?

A I wouldn't know that.

Q Is this because you ---

A It is my understanding -- but I may be wrong -- that most companies produce -- maybe they don't. It was my understanding that larger company could be selling valves alone.

Q But you just don't know what they were?
A No.
Q You buy yours from Dräger?
A From Dräger.
Q An anesthesia carbon dioxide absorber?
A That is correct.
Q There are a number of manufacturers of those items?
A That is right.
Q The yokes that are sitting on the side of the machine that hold up the gas bottles or cylinders, those are readily available, are they not?
A There are yokes available which do not necessarily fit each anesthesia machine. Either the anesthesia machine must be designed to accept the yoke or vice versa.
Q In fact, the yokes are little metal forgings that are finished off in a machine shop; isn't that so?
A A yoke is a forging. It contains a safety device, the connection of cylinders and in most cases also contains a check valve.
Q Are there any other major components? Well, the anesthesia machine has a sheet metal frame?
A Sheet metal frame, table top, monitoring top and cabinets.
Q That is just sheet metal work?
A Yes.
Q Do you make those yourself, or contract out?

A It is also designed. We have a specific shop that produces it.

Q Have I missed any important element of an anesthesia machine during the last few minutes?

A There are a number of check valves in the anesthesia machines to avoid the gas flowing in the direction you don't want. Normally, pipeline inlets into the anesthesia machine. But that is about it.

Q Is it possible to buy those components in the United States, too, from several sources?

A Yes, that is possible.

Q So, in some, I think it would be fair to say, would it not, that you can either buy or contract out on a very simple basis every single part of any anesthesia machine. Isn't that so?

A I would have to answer with yes.

JUDGE BARNES: Off the record.

We will adjourn until 2:00 o'clock.

(Whereupon, at 12:30 p.m., the hearing recessed, to reconvene at 2:00 p.m., the same day.)

GATC.
MAN
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AFTERNOON SESSION

2:00 p.m.

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PETER SCHREIBER resumed the stand and testified further as follows:

CROSS-EXAMINATION (resumed)

By Mr. Kaplan:

Q This morning, sir, I think you told us that your principal competitors in the inhalation anesthetic equipment and accessories field were Ohio, Forreger, Fraser Sweatman and Harris Lake. Do you recall that?

A That is correct.

Q Those are not necessarily your principal competitors, or even the principal competitors on every piece of equipment in this field, correct?

A This is correct, yes.

Q For example, on anesthesia ventilators, some of those companies perhaps don't make them, correct?

A That is correct.

Q And there are other companies not on that list who do?

A That is correct, too.

Q And there are other companies not on the list you gave this morning who are very substantial competitors in the anesthesia ventilator field, correct?

A Companies not listed by me?

Q Correct.

A Well, I wouldn't know any answers, but it is possible, yes.

Q For example, on that list of Ohio, Forreger, Dupaco, Fraser Sweatman and Harris Lake, you didn't include Bird Corporation?

A I think I did for ventilators.

Q Well, we had several.

A It was a different question, maybe.

Q It was different lists.

A Yes, okay.

Q But from product to product, the point is, the companies involved vary, correct?

A That is correct.

Q Their relative rankings vary?

A That is correct, too.

Q I think also this morning you defined anesthesia as the process of rendering a patient insensitive to pain and paralyzing him through the use of ---

A And sleep.

Q ---some foreign agent, is that correct?

A Yes.

Q Now, the use of anesthesia equipment and inhalation anesthetics is not the only way of administering anesthesia, is that correct?

A That is correct.

Q There are also other drugs that are injected?

A Correct.

Q There may be other processes as well?

A That is correct.

Q I think also in defining the term "respiratory care," this morning, you said that it was treatment of a patient who has insufficient spontaneous breathing in the keeping of his lungs free of secretion, is that accurate?

A This is as accurate as I can come up with a statement. Medically, there might be a better statement possible.

Q There are various ways of keeping patients' lungs free of secretions, are there not?

A That is correct, yes.

Q There are some drugs that are administered?

A That is one way.

Q And, as a matter of fact, the use of various mechanical suction devices is also existant in this field?

A That is one way, other way.

Q You do not manufacture any such suction equipment, do you?

A No, we don't.

Q Do you know of any other ways of keeping a patient's lungs free of secretions?

A With a type of ventilation which maintains a higher mean alveolar pressure.

Q You have used that term before and I have some remote

t-4

hunch that maybe I know what it means. But perhaps you can explain what it means, what the alveolar pressure is and what its significance is.

A There are basically three different kinds of artificial ventilation.

In one system, you produce a positive pressure in the lung during the inspiratory phase and the negative pressure during the expiratory phase.

There is a second way you produce a positive pressure in the lungs and you allow your patient spontaneously to exhale, so that at the end of the expiratory phase, the pressure in the lung equals the atmospheric pressure.

There is a certain way you produce a positive pressure in the lung, but you do not allow your patient to exhale to the atmospheric pressure, but keep an expiratory pressure which is above atmospheric pressure which, under circumstances, may prevent a traumatic wet lung effect or some liquid passing from the liquid part of the lung into the gas part of the lungs.

Q If I can just try to simplify that a little bit; let's see if we can do it without any loss of content.

There are three kinds of ventilators, right?

A No, it may be in the same ventilator.

Q I see. The same ventilator may be capable of three functions?

A Right.

Q And basically, you make it easier for the patient to exhale by creating negative pressure outside?

A Right.

Q You let him exhale naturally?

A Right.

Q Or you make it more difficult for him to exhale?

A Yo retard the exhalation.

Q Now, some ventilators can do one and not the other of these things, is that right?

A That is correct.

Q And some of the different manufacturers of ventilators make one and not the other types of equipment, is that so?

A That is so; or it may be an accessory to the ventilator.

Q And these pieces of equipment, I assume, have different and specific medical applications?

A This is correct. While it must be understood that during the same course of ventilation, one specific patient, you may change your treatmant.

MR. KAPLAN: Of course, of course.

No further questions, Your Honor.

Thank you.

MR. WOLLEN: Just a question or two, Your Honor.

XXXX By Mr. Wollen:

Q Mr. Schreiber, do I correctly conclude from the testimony this morning that North American Draeger does not sell any

gases?

A North American Draeger does not sell gases, no.

Q Thank you.

A No.

JUDGE BARNES: Mr. Purcell.

MR. PURCELL: I have just a few questions, Your Honor.

REDIRECT EXAMINATION

By Mr. Purcell:

Q Mr. Schreiber, you testified on cross-examination that products listed in your response to our subpoena under the inhalation anesthetic equipment area, specifically airways, Y-pieces, oxygen meters, were occasionally used for, or could possibly be used for inhalation therapy purposes, is that correct?

A That is correct.

MR. WOLLEN: I object to the form of the question, Your Honor. This neither exhausts the category of products that Mr. Schreiber testified about, nor does it accurately portray his testimony.

JUDGE BARNES: I would like to hear that question over again.

(The record was read by the Reporter.)

JUDGE BARNES: The question is fine.

He did not intend his question to be all-inclusive.

MR. PURCELL: That is correct.

By Mr. Purcell:

Q Mr. Schreiber, is it a common practice for these pieces, items, to be used for inhalation anesthetic purposes, and then be used for inhalation therapy purposes?

MR. TOPKIS: And, then, be used for what?

MR. PURCELL: For both purposes.

JUDGE BARNES: It is a common practice for both of those items to be used for both purposes?

MR. PURCELL: That is correct.

JUDGE BARNES: And both items in your question?

MR. PURCELL: That is correct, Your Honor.

MR. WALKER: Your Honor, the witness has indicated he considers this to be a medical question and it isn't within his knowledge to respond.

MR. TOPKIS: Sorry, could I hear Counsel's comment?

MR. WALKER: Yes. The witness has indicated that he considers this to be a medical question, more than one that is in his field of knowledge.

JUDGE BARNES: To your knowledge, are they used for both purposes?

THE WITNESS: Yes, they may be used. But I could not even guess any percentage figures, how often it happens.

By Mr. Purcell:

Q Mr. Schreiber, directing your attention to human and veterinary anesthesia machines, is the production technology

used to produce these machines the same?

MR. TOPKIS: Production technology?

MR. PURCELL: Production technology.

MR. TOPKIS: I don't know what that means.

JUDGE BARNES: Manufacturing technology.

MR. PURCELL: Manufacturing technique.

MR. TOPKIS: Well, in the light of the witness' earlier testimony, now these machines are made up of various parts that are readily available, and how you use sheet metal and wheels, I suppose, for the carrying device, I don't understand this question about production technology.

JUDGE BARNES: Do you understand that question?

THE WITNESS: I do, yes.

JUDGE BARNES: You may answer it.

THE WITNESS: The know-how in production, the training and skill of the people, that is the way I understand it, is the same for both pieces of equipment.

MR. PURCELL: Your Honor, we have no further questions.

MR. KAPLAN: No questions, Your Honor.

Thank you, Mr. Schreiber.

JUDGE BARNES: Mr. Schreiber, thank you very much.

(Witness excused.)

JUDGE BARNES: Mr. Purcell, we have another witness, or is he available now?

MR. PURCELL: Yes, Your Honor, and he is available.

Mr. Nickel has gone to indicate that.

Your Honor, my understanding of the next witness, he is not here and he will be available in a few minutes.

JUDGE BARNES: What is a few minutes?

MR. PURCELL: Five minutes. Could we take a five-minute break?

He was told to be here at 2:00 o'clock, Your Honor.

MR. NICKEL: At 2:15 p.m.

JUDGE BARNES: We will take a five-minute recess, then.

XXXXX (A brief recess was taken.)

MR. KRULLA: Your Honor, Complaint Counsel call Mr. Kuehn to the stand.

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BERNHARD K. KUEHN was thereupon called as a witness for the Commission and having been first duly sworn, testified as follows:

XXXX DIRECT EXAMINATION

By Mr. Krulla:

Q Mr. Juehn, would you please state your name and home address for the record?

A Bernhard K. Kuehn, Black River Road, Pottersville, New Jersey.

Q Could you spell that?

A K-u-e-h-n B-e-r-n-h-a-r-d.

Q Mr. Kuehn, are you presently employed?
A I am self-employed.
Q How long have you been self-employed?
A Since the fourth of May.
Q And who was your last previous employer prior to that?
A The Chemetron Medical Products Division.
Q In what capacity were you employed by Chemetron's Medical Products Division?
A General Sales Manager.
Q And how long have you held that position?
A Eight years, eight to 10 years.
Q And what were your duties and responsibilities as General Sales Manager?
A Complete responsibility for the sales and marketing of oxygen, anesthetic gases and related equipment.
Q Did you hold any previous positions with the Chemetron Medical Products Division?
A I was Assistant Sales Manager, and prior to that, I was a District Manager.
Q And how long totally have you been employed by the Chemetron Medical Products Division?
A April 1, 1965.
Q And prior to that date, what employer?
A I was with the McGraw-Edison Company, Medical Products Division, which was acquired by Chemetron on April 1, 1965.

Q How long have you been in the medical gases and medical equipment industries?

A October 1949.

Q In what business is the Chemetron Medical Products Division engaged?

A The manufacture of gases and related products. These are products for dispensing gases; therapy, oxygen and anesthetic gases.

Q Would these include inhalation, anesthetic equipment?

A Yes.

Q Would these include inhalation therapy equipment?

A Yes.

Q Could you define inhalation anesthetic equipment?

A It is apparatus that is used for dispensing anesthetic gases and oxygen to a patient during a surgical anesthetic procedure.

Q Is dental Analgesia equipment included in your definition of inhalation anesthetic equipment?

A Yes.

XXXX (Commission Exhibit CX-316-A - C was marked for identification.)

By Mr. Krulla:

Q Mr. Kuehn, I show you Commission Exhibit 316 for identification purposes.

MR. TOPKIS: Excuse me.

Before that is shown to the witness, may I inquire if this is a document of which we have been furnished a copy? I don't believe so.

MR. NICKEL: Yes.

JUDGE BARNES: Let the record show they have now been furnished a copy of the document.

MR. KRULLA: This document has been requested to be treated confidentially; and, if it is introduced in evidence, to be given in Camera treatment.

By Mr. Krulla:

Q Mr. Kuehn, do you recognize this document?

A Yes.

Q Could you explain to us what it is?

A This is a composite report of sales figures in two categories, inhalational anesthetic equipment, inhalational therapy equipment. It was generated upon the request of the FTC.

Q Was this document prepared by you or under your supervision, your direct supervision?

A It was prepared under my supervision.

MR. TOPKIS: Excuse me. Could we have the precise facts, without leading, Your Honor? This can often be a delicate matter, "it was prepared under my supervision."

With all due respect to Mr. Kuehn, I would not want to take the responsibility for everything under my direction, and I am sure he wouldn't either.

JUDGE BARNES: Let's go a little more to the background; when was it prepared, how was it prepared?

By Mr. Krulla:

Q Mr. Kuehn, you indicated this document was prepared at the request of the Federal Trade Commission?

A That is correct.

Q In what form was that request?

A It was a written, subpoenaed form, and it was mailed to me through our corporate attorney.

Q To what individual was that subpoena directed?

A To my attention, through the corporate attorney.

Q And what steps did you take to carry out the directions of this subpoena?

A I consulted with our Accounting Staff, the Assistant Comptroller, and our Planning Manager.

Q And after consulting with these individuals, what further steps were taken?

A They generated this report of composite figures.

Q Have you seen a copy of those figures, or that report, prior to this time?

A Yes. I reviewed it prior to forwarding it to our corporate attorney, who forwarded it upon request to FTC.

Q Do you believe the information contained in that document to be accurate to the best of your knowledge?

A Yes.

MR. KRULLA: Your Honor, I move that Commission Exhibit 316 be admitted into evidence for identification purposes.

MR. TOPKIS: A few questions on it, voir dire, Your Honor.

JUDGE BARNES: Yes, sir.

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VOIR DIRE

By Mr. Topkis:

Q Mr. Kuehn, who typed this, sir?

A My Secretary.

Q And I see in it the language "Our Category 65." What does that refer to, sir?

A That is an identification for surgical anesthesia equipment and related merchandise.

Q That is an identification in your computer system, data processing system?

A Yes.

Q And what does 65 include?

A Surgical anesthesia machines and related accessories. Items that are an adjunct to a surgical anesthesia.

Q And I notice, since you have requested in Camera treatment of this document, I am going to ---

Does Your Honor have a copy of it?

JUDGE BARNES: No.

MR. TOPKIS: Might I show you the one from which I am

examining the witness and read over Your Honor's shoulder?

JUDGE BARNES: All right.

By Mr. Topkis:

Q Mr. Kuehn, I notice, let's take the year 1972, sir, you have a total there for 'Our Category 65.'

Do you see that figure?

A Yes.

Q And adding up the numbers under that figure for items included within it, the total is less than one-third, the total of the items broken down is less than one-third of the overall total?

A It includes analgesia which we identify as inhalational anesthetic merchandise.

Q What includes analgesia, sir, the title, 65?

A Yes, but that figure that you are referring there to is the first figure, and the seventh figure is a composite total of those.

Q The seventh figure is a category 66 figure, is it not?

A But we identify it as an inhalational product.

Q Yes, but that is not my question, sir. My question is this: Under 'Our Category 65,' you have a number, right?

A Yes.

Q Adding the five numbers under that does not produce the first number as a total.

A Well, there are many, many items that weren't identified

in that first one, which would be an absorbent material. We couldn't break it out as to exactly what it was.

Q What are these other items which account for more than two-thirds of your category of 65?

A Baralyme absorbent material.

Q And what is it, please?

A It is a CO_2 absorbent material which is used in surgical anesthesia.

Q And that accounts for more than two-thirds of your category 65 sales?

A Yes.

Q Is that made by anybody else?

A There are other competitive products, yes.

Q It is a chemical that is used in conjunction with anesthesia machine, is that right?

A It is an adjunct to an anesthetic procedure. It is used in a breathing absorber.

Q I see.

What else is there in your category 65, sir, that is not listed here?

A That is it.

Q And you see the language, "Included are following estimates,"with the word estimates underlined?

A Yes.

Q Whose estimates are those?

A The Assistant Comptroller's and the Planning Manager's.

Q They made them together?

A As well as myself, concurring with them.

Q You reviewed them?

A Oh, yes.

Q And concurred in them?

A Yes.

Q Well, why is it, sir, that you have to use estimates here rather than having the precise figures?

A Because we don't break them out on a line-item basis.

Q All you break out is your category 65?

A Yes.

Q So you took an estimate of what share of Category 65 would be represented by that chemical you mentioned a moment ago?

A Yes.

Q And gas machines, vaporizers, and so on, right?

A Yes.

Q Now, Category 66, there your sales are even larger than your sales of Category 65, do you notice that?

A Yes. That is broken out separately.

Q Category 66 is broken out separately?

A (The witness nodded his head.)

JUDGE BARNES: The answer is "yes "?

THE WITNESS: Yes.

By Mr. Topkis:

Q But just as a total, you don't have any breakdown for any of the components of Category 66?

A No.

Q You would have to make estimates of those components also?

A Yes.

MR. TOPKIS: Your Honor, I must confess that we are rather at a severe handicap in trying to analyze estimates based on underlying data which we haven't seen.

I don't like to be difficult, but really, I think we are precluded from effective cross-examination without the underlying material.

JUDGE BARNES: I think Complaint Counsel should try to establish what Category 65 is, what Category 66 is, what Category 63 is, in a little more detail before we can understand this exhibit.

MR. TOPKIS: Thank you.

By Mr. Krulla:

Q Mr. Kuehn, which items in this Commission Exhibit 316 does Chemetron manufacture and sell?

JUDGE BARNES: Let's take it one at a time, which do they manufacture?

By Mr. Krulla:

Q Well, which of these items does Chemetron manufacture?

A We don't manufacture any of the items shown here.

Q Is that true for the entire listing?

A No.

Q That is true with respect to what portion of this list?

A We manufacture baralyme, which is part of the composite figure on the top line.

Q Do you classify baralyme as inhalation anesthetic equipment?

A In our organization, we classify it in the product 65 category, yes.

Q Chemetron's manufacture of hardware, permanent and disposable, either reuseable or disposable pieces of equipment, inhalation anesthetic equipment, amounts to what dollar value?

MR. TOPKIS: Could I have that question back again?

JUDGE BARNES: Read the question back.

MR. KRULLA: I withdraw the question, Your Honor.

JUDGE BARNES: All right.

By Mr. Krulla:

Q Aside from baralyme, what items in Category ---

MR. TOPKIS: Excuse my ignorance but is this lime which comes in a barrel? A little difficult spelling over here, Mr. Kuehn.

THE WITNESS: B-a-r-a-l-y-m-e.

MR. TOPKIS: Fine, thank you.

THE WITNESS: It is a carbon dioxide absorbent material. It is used in conjunction with anesthetic procedures.

Another material of a similar identity is a product called sodalime; S-o-d-a-l-i-m-e.

MR. KRULLA: Could we have a moment, Your Honor?

(Brief Pause.)

By Mr. Krulla:

Q Mr. Kuehn, does the figure listed in Document 316 for inhalation anesthetic equipment, Category 65 total, does that figure represent the value of inhalation anesthetic equipment?

MR. TOPKIS: No, excuse me, please.

Could we have the witness asked what that figure means, rather than being led?

JUDGE BARNES: All right, ask him what it represents.

By Mr. Krulla:

Q What does that figure represent?

A It represents the gross sale figure, of our involvement in products to the anesthesiologist, which we identify as Product 65, which includes gas machines, vaporizers, conductive rubber absorbers, miscellaneous parts, including the absorbent material baralyme.

JUDGE BARNES: How many of those products do you manufacture, Mr. Kuehn?

THE WITNESS: The only one we manufacture is baralyme.

By Mr. Krulla:

Q Do the sales of baralyme, or the total figure, the first figure indicated in Commission Exhibit 316, the discrepancy

between that and the subsequent five figures as pointed out by Mr. Topkis, what is ---

A That is baralyme.

Q Are all those sales in that differential accounted for by baralyme manufactured by Chemetron?

A Yes.

Q And all other figures under Category 65 consist of items of resale?

A Correct.

MR. KRULLA: Your Honor, I move that Commission Exhibit 316 for identification purposes be admitted into the record.

JUDGE BARNES: Any objections?

MR. TOPKIS: I don't think it has been improved, YOur Honor.

We still don't know very much about the underlying figures. And we have got some, we have got dental analgesia, pardon me, not broken down at all.

And, then, down at the very bottom, Your Honor, we see that the key item is utterly without definition, because it includes that terribly useful term "other," which is far larger than anything else.

So, it would appear that the question that was put to Chemetron by this specification wasn't sufficiently precise to draw forth useful response.

JUDGE BARNES: Mr. Krulla, I think you still have to elicit other background information as to what is included in Category 66 and what is included in Category 63. Otherwise, we really don't know what is involved here.

And also, I think you might want to put into the record a copy of your subpoena specifications.

By Mr. Krulla:

Q Mr. Kuehn, the figure in Commission Exhibit 316 before you, adjacent to Category 66, total figure, what does that represent?

A That includes the sale of the analgesia dispensing unit in the operatory, the piping equipment bringing the gas from a remote location to the operatory, such as valving, brackets, including the manifold, which is the source remotely for gas; which would be manifolds for oxygen and manifolds for nitrous oxide..

Q Are any of these items manufactured by Chemetron?

A The dental dispensing unit is not but everything else is.

Q Can you identify, Mr. Kuehn, on a percentage basis, for Category 66, those items which are of Chemetron's own manufacture and those items which are resale items?

A As an estimate only, perhaps 70 percent.

Q Are in what category?

A Manufactured by vendor source. In other words, the dispensing unit for dispensing in the operatory.

Q Then, 30 percent of this figure is Chemetron's manufacture?

A Estimated because of the reasons that we clearly stated earlier.

Q Then, can you identify which items in Category 66 are manufactured by Chemetron?

A Certain segments of manifolds, wall valves, outlets for the gases and things of that nature. Zone valves.

Q In category 63, Mr. Kuehn, are all of these -- can you identify which of these items are manufactured by Chemetron?

A Our flowmeters and the balance is not.

Q The total sales figure, then, adjacent to flowmeters, represents the sole item of Chemetron's own manufacture in Category 63?

A Correct.

MR. KRULLA: Your Honor, I move again that Commission Exhibit 316 be admitted into evidence.

MR. TOPKIS: Your Honor, I am sorry, but ---

MR. KRULLA: If you desire, Your Honor, we can attach the subpoena specifications.

JUDGE BARNES: If you have, I would like a copy, and a copy of the exhibit also.

MR. TOPKIS: Well, Your Honor, it would appear that what we have been given here is the end product of the data processing system maintained by Chemetron, and at the very least, I think in offering something like that, Complaint Counsel, in asking us,in effect, to let it come in blind, Complaint

Counsel ought to let us see the definition used by the data processers. All data processing systems have definitions prepared by the programmer, and used in the administration of the data processing system.

I haven't the faintest desire to challenge Mr. Kuehn, but I imagine he is as much at the mercy of the data processing system in his office as I am in mine.

I perhaps have a vague idea what we mean by "Our Category 63," but I wouldn't want to be cross-examined on it. And I think he is necessarily in the same boat. And this idea that the last item should be bigger by far than any other, really doesn't help us at all.

MR. KRULLA: Your Honor, the only items we are concerned with in Commission Exhibit 316 are those of Chemetron's own manufacture. The rest of the items on this document are resale items. We have identified the items of Chemetron's own manufacture.

JUDGE BARNES: Well, then, you would be offering Exhibit 316 to show under Inhalation Therapy Equipment, flowmeters?

MR. KRULLA: That is correct, Your Honor.

JUDGE BARNES: You would be offering under item, under Category 65, the difference between the figure shown and the total, which is the baralyme?

MR. KRULLA: Correct, Your Honor. And also under

Category 66, dental analgesia, 30 percent of the figure shown.

JUDGE BARNES: Which was of ---

MR. KRULLA: Chemetron's own manufacture.

JUDGE BARNES: And what were those items,again, under item 66, that you manufacture?

THE WITNESS: The valves, outlets in the operatory, brackets and manifolds.

MR. TOPKIS: Your Honor, I have no objection, in the light of what Your Honor has just brought out, except I would like to ask the witness one or two questions about this last item.

JUDGE BARNES: All right.

MR. TOPKIS: The 30 percent that Chemetron makes itself.

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VOIR DIRE

By Mr. Topkis:

Q These are, do I gather, fittings attached to a wall, through which nitrous oxide and oxygen come to the dental operating room or dental procedure room, is that right?

A Yes.

Q Would it be accurate to describe them as pipelines and related fittings?

A The pipeline itself, as far as pipe or tubing, we don't sell. But it is the outlet stations, the valves, and the manifolds.

Q For the pipeline?

A For the pipeline. We do not sell tubing or brass pipe.

MR. TOPKIS: Right.

Your Honor, on the basis of Complaint Counsel's announcement at the outset that they are not concerned with pipeline systems here, I would hold that this last item is irrelevant. But I don't have any objection to receipt of the exhibit for the first two items, namely, production of flow-meters and of Laralyme.

MR. KRULLA: That is fine with Complaint Counsel, Your Honor.

JUDGE BARNES: Will you withdraw your offer of Category 66?

MR. KRULLA: Yes, Your Honor.

JUDGE BARNES: All right. On that basis, I will receive Commission Exhibit 316, and I am going to attach to 316 the specifications of subpoena that were served on Mr. Kuehn, so we will now have 316-A-B and C.

A is the figures which have been produced, and B and C are the subpoena specifications.

And I am going to receive this Exhibit in Camera.

(Commission Exhibit CX-316-A, B and C was received in evidence in Camera.)

By Mr. Krulla:

Q Mr. Kuehn, to whom does Chemetron market inhalation

anesthetic equipment and accessories?

A To hospitals, principally the specialty of anesthesiology.

Q How does Chemetron distribute or market inhalation anesthetic equipment and accessories?

A Direct, through direct marketing and sales efforts.

Q Does Chemetron have its own sales force?

A Yes.

Q Can you indicate the size of that sales force?

A Approximately 75 people.

Q Does Chemetron also distribute and market inhalation anesthetic equipment through dealers?

A Yes, a small percentage.

Q In what area of the United States does Chemetron market inhalation anesthetic equipment and accessories?

A On a nation-wide basis.

Q And from what point does Chemetron distribute these items of the inhalation anesthetic equipment and accessories?

A St. Louis, Missouri.

Q Does Chemetron market these inhalation anesthetic equipment and accessories nationwide from St. Louis?

A That is the control center. We have five regional sales and marketing centers.

Q But the physical transportation of items of equipment would be from what areas?

A From St. Louis.

Q Is that true with respect to resale items, items that Chemetron purchases from other manufacturers?

A Yes, St. Louis ---

Q Those would be handled through St. Louis?

A Yes.

Q Does Chemetron's Medical Products Division sell medical gases?

A Yes.

Q MR. KRULLA: Could we have a moment, Your Honor?

JUDGE BARNES: Commission Exhibit 316 received in evidence in Camera will be subject to the protective order that I have entered.

By Mr. Krulla:

Q Mr. Kuehn, we would like to know in 1972, what Chemetron's sale, value of shipments of medical gases was? I understand that this is confidential information.

Can you mark it down on a piece of paper, and to be treated, or for which we will request in Camera treatment?

MR. TOPKIS: Could we know, Your Honor, before we get into marking on bits of paper, whether this material appears in the Census form as to which we have already stipulated?

JUDGE BARNES: I think we should develop whether or not this is in previous sales figures received or is this a separate item, or something of that nature.

MR. KRULLA: Your Honor, this is a separate item. It

is included in the total which is included to Census, but we do not have a separate break-out for this figure.

MR. TOPKIS: We don't have it for anybody else, either. What is the point of getting it for Chemetron?

MR. KRULLA: The relevance of this figure will be clear if you will allow me to progress.

MR. TOPKIS: Well, I have to pull back in the face of that kind of supplication. But may I have defined what are medical gases?

JUDGE BARNES: I would think so. I have been wondering about medical bases all through this proceeding, where they should be treated.

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By Mr. Krulla:

Q Mr. Keuhn, what gases do you consider to be medical gases?

A Gases that are identified for use by the anesthesiologist in surgical anesthesia procedures, or gases that are required by dentists for analgesia procedures.

Q Of those gases, what gases are produced by Chemetron?

MR. TOPKIS: Could we know which they are?

JUDGE BARNES: Let's name them first, and then ---

By Mr. Krulla:

Q Could you name those gases?

A Oxygen, nitrous oxide, cyclopropane, ethylene.

Q Are all of thess gases marketed by Chemetron?

A Yes.

Q Are all of these gases marketed by Chemetron's Medical Production Division?

A Yes.

Q Does Chemetron produce all of these gases?

A No.

Q Which of these gases does Chemetron produce?

A Oxygen and cyclopropane.

JUDGE BARNES: Do you have a correction to make?

THE WINTESS: We did manufacture cyclopropane up until the First of May, and we have sold the cyclopropane operation.

ms-2

By Mr. Krulla:

Q Mr. Kuehn, to your knowledge is there a difference between medical oxygen as distributed by the Chemetron Medical Products Division, and oxygen distributed as an industrial gas?

A The same manufacturing process is used in producing a gas for either application.

JUDGE BARNES: Is there a packaging difference?

THE WITNESS: There is a packaging difference.

By Mr. Krulla:

Q Mr. Kuehn, the 1972 sales by Chemetron of medical gases, in dollar terms, I understand to be a confidential figure. Can you indicate that dollar figure on a piece of paper, for which Commission counsel will request in Camera treatment?

A Yes.

JUDGE BARNES: Mr. Kuehn, mark it on a piece of paper and we will pass it around to the parties.

THE WITNESS: Now, so that I understand the question, this is for medical gases and oxygen?

By Mr. Krulla:

Q Mr. Kuehn, this would be for medical gases as you have defined them, including medical oxygen.

MR. TOPKIS: Whether or not manufactured by Chemetron.

MR. KRULLA: Whether or not manufactured by Chemetron, total sales.

ms-3

MR. TOPKIS: That is a new, terribly useful figure we are going to have.

JUDGE BARNES: Let me ask you, Mr. Kuehn, does Chemetron manufacture all of their medical oxygen?

THE WITNESS: Yes.

JUDGE BARNES: Yes. All right, then, the gases that you consider to be medical gases, what was your total dollar sale -- in 1972?

MR. KRULLA: Yes, Your Honor.

JUDGE BARNES: In the United States.

MR. THURMAN: Your Honor, I think the proper procedure is to get an envelope and put that in and mark it confidential. If I may, I will. I don't know how you want to handle it.

JUDGE BARNES: I will receive it in Camera like any other exhibit.

All right, Mr. Krulla, let's show this to the Respondent's counsel. And assign it an exhibit number for identification.

MR. KRULLA: Your Honor, Complaint counsel marks this Exhibit 322.

(The document referred to was marked Commission's Exhibit CX-322 (in Camera) for identification.)

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MR. LYNCH: Your Honor, can I have a minute with my witness?

JUDGE BARNES: Yes.

(The witness confers with Mr. Lynch.)

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MR. TOPKIS: Your Honor, could we defer treatment of this? I am really having, as of course Your Honor will understand, a little in difficulty trying to cross-examine about a figure which just comes at me out of the blue. Whether it presents me with any problems, I can't know, because I can't talk with my client about it.

So, I am trying, by means, to develop some feel for it, so if we can pass on.

JUDGE BARNES: All right, we will pass on and reoffer it before the witness is excused.

By Mr. Krulla:

Q Mr. Kuehn, in July of 1972, did you meet with representatives of BOC?

A Yes.

Q What was the purpose of that meeting?

MR. TOPKIS: Objection, Your Honor.

By Mr. Krulla:

Q What did you understand to be the purpose?

MR. TOPKIS: Now ---

JUDGE BARNES: What was said at the meeting?

MR. TOPKIS: Yes; with whom?

JUDGE BARNES: What was said?

By Mr. Krulla:

Q With whom did you meet?

A A gentleman by the name of Ray Williams.

ms-5

Q Do you know what Mr. Williams' capacity with BOC was at that time?

A He was in a top managerial capacity of some sort. I don't recall the exact identity of the position.

Q Where did you meet with Mr. Williams?

A In Chicago.

Q Do you know when in July of 1972 you met with Mr. Williams?

A The exacte date escapes me, but I do have it on record as to exactly when it is. I don't have it in my possession, but it was in July.

Q Was this a single particular time, point of time, in July?

A When he was in Chicago in July we met on two or three occasions.

JUDGE BARNES: Was this day after day, or say at some intervals?

THE WITNESS: There was an interval.

By Mr. Krulla:

Q Was anyone else present at those meetings?

A Essentially they were with my -- between the two of us, though I did invite some associates in to meet the gentleman.

Q And what was discussed at this series of meetings in July?

A The possibility of exploring the potential of doing business together, nationally as well as internationally.

Q What area of business would these be?

A That related to the job responsibility I had in the

ms-6

Medical Products Division. The marketing of anesthetic gases, bulk oxygen and related equipment.

MR. TOPKIS: By whom?

JUDGE BARNES: Is this a joint venture or merger, or what do you mean by "doing business together"?

THE WITNESS: It was a venture, type of exploratory discussion.

By Mr. Krulla:

Q Was any follow-up made by BOC to your knowledge, subsequent to this series of meetings in July?

A We had other meetings during the balance of the year, yes.

Q Who initiated this July series of meetings?

A Ray Williams telephoned me, through an introduction of their representative in Canada.

Q And who was that representative?

A Fraser Sweatman.

Q You indicated that subsequent meetings were held?

A Yes.

Q And what was the substance of those subsequent meetings; what was discussed?

A A continued exploration of the possibility of a venture, business arrangement, as I have mentioned.

Q Could you specify some of the more detailed areas that were discussed along this line?

A Equipment for the anesthesiologist, gases and identically

ms-7

the same for the specialty of inhalation therapy.

Q Did BOC make any offers to Chemetron or to yourself in the course of these meetings?

MR. TOPKIS: Your Honor, please, this is leading this witness quite regularly, and I don't know why it has to be done. "Did BOC make any offers?" Why not ask did Chemetron make any offers to BOC?

JUDGE BARNES: Let's see, can you rephrase your question, Mr. Krulla?

MR. THURMAN: Were any offers made, period.

By Mr. Krulla:

Q Were any offers made in the period of these meetings?

JUDGE BARNES: What kind of offers now, purchase or ---

By Mr. Krulla:

Q More specific offers keyed to a joint or venture type of operation?

A These sessions didn't evolve to the stage of offers being made. We were exploring the capabilities of a venture arrangement of some sort.

As far as I interprete your question, "offers," we talked about many possibilities in areas and directions, but they fell by the wayside when the BOC people were interested in a majority position only.

Q Was this not acceptable to Chemetron?

A That is correct.

ms-8

Q Was there any other problem that came up to terminate these discussions?

A No.

Q So the sole reason, to your knowledge, the reason why these discussions were terminated to your understanding, was that BOC sought a majority control of any operation that resulted?

MR. TOPKIS: Your Honor, that is the disadvantage of leading questions.

JUDGE BARNES: That is the "sole reason." I don't like your question, Mr. Krulla.

By Mr. Krulla:

Q What do you mean by "majority interest," Mr. Kuehn?

A Fifty-one percent, or more, of any business arrangmeent that may have evolved.

Q And what type of business arrangements were considered?

A The forming of a company that would solely participate in the manufacture, marketing and sales of the products that we have been mentioning.

Q And those products include?

A They were gases, anesthetic gases, bulk oxygen or therapy oxygen, and related equipment.

Q And what do you mean by related equipment?

A Durables, for the use in the specialty of anesthesiology, respiratory care, and piping of gases throughout institutions.

ms-9

JUDGE BARNES: Mr. Kuehn, these were items that Chemetron did not manufacture at the time?

THE WITNESS: No, we are manufacturers of piping equipment, for the use of dispensing gas throughout hospitals.

By Mr. Krulla:

Q To your knowledge, Mr. Kuehn, were these contacts with Chemetron the only such discussions which BOC was engaged in at this time?

MR. TOPKIS: Objection, Your Honor.

JUDGE BARNES: That is to your knowledge, Mr. Kuehn, did the BOC representatives tell you of any other conversations that they were having?

THE WINTESS: I understand. Yes, there were conversations with others.

JUDGE BARNES: Did they tell you this?

THE WITNESS: Yes.

By Mr. Krulla:

Q And what did BOC representatives -- who told you this?

A Ray Williams.

Q When did he tell you this?

A During our sessions in July, and when we were -- following the July meeting, when we went to Toronto for a meeting.

Q And what did he tell you?

A That they were interested in entering the health care field with the United States, and intended to do it, either

ms-10

the grass roots or through acquisition.

Q Did Mr. Williams indicate in the course of this discussion, or at any other time, what he meant by the health care field?

A Well, it was understood on my part that we were talking about the products that I have just mentioned, oxygen, anesthetic gases and related equipment for the anesthesiologists, for respiratory care, and so on.

JUDGE BARNES: Was BOC in the business in the United States at that time?

THE WITNESS: At that time they did own the Sweatman organization, and an anesthesia manufacturing machine company in Cleveland; had a percentage of it, I believe.

MR. TOPKIS: At that time, Your Honor, there is no uncertainty about it, we owned 24 percent of the company which owned Harris Lake, which was the anesthesia.

JUDGE BURNES: Harris Calorific?

MR. TOPKIS: That is right, Your Honor.

By Mr. Krulla:

Q Did Mr. Williams tell you of any other alternative plans of BOC for entry or participation in any of these United States markets beyond the discussions centered around a joint operation with Chemetron?

A None other than what I have mentioned.

JUDGE BARNES: Just the health care field, Mr. Kuehn?

THE WITNESS: Yes.

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By Mr. Krulla:

Q Did Mr. Williams indicate to you that the only manner of entry, or did Mr. Williams indicate to you ---

MR. TOPKIS: I am just winding up, Your Honor.

(Stands.)

By Mr. Krulla:

Q Okay, I withdraw the question.

MR. TOPKIS: Withdraw the wind-up.

JUDGE BARNES: I think he said through grass roots or ---

MR. KRULLA: I don't think there are too many others.

JUDGE BARNES: Other ways.

MR. KRULLA: No.

By Mr. Krulla:

Q Mr. Kuehn, were your conversations with Mr. Williams and with others from BOC general in nature, or did they narrow down to specific considerations at any time?

MR. TOPKIS: objection, Your Honor.

JUDGE BARNES: That is a rather general vague question. Can't you be more specific, Mr. Krulla?

By Mr. Krulla:

Q Was the topic of Chemetron's and BOC's product compatibility discussed at any time?

A Yes, on an exploratory level.

Q What was the outcome of those discussions as to

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compatibility?

A Favorable.

Q And what do you mean by "favorable"?

A Well, we would have strengths in areas where they had weaknesses, and pursuits of that caliber.

Q As to the medical gas portion of these ventures, was any discussion had as to possible sources of supply?

A Well, one point we talked about, the capabilities of manufacturing nitrous oxide, and oxygen, with the indication that should this become a reality, there were many other areas, sources that we could turn to for sources of gas, if need be. But we did talk about those two areas of plant development, though on an exploratory basis only.

Q Development of the venture's own plants?

A Yes.

JUDGE BARNES: Mr. Kuehn, at the time did you have a source, or did you manufacture nitrous oxide?

THE WITNESS: We did not, and do not. We buy our nitrous oxide from other sources.

By Mr. Krulla:

Q Mr. Kuehn, can you name in terms of sales for the four largest companies in the United States inhalation anesthetic equipment and accessories market?

MR. TOPKIS: Objection, Your Honor. I think we are now going into yet another question, somewhat different from any

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that we have heard before.

JUDGE BARNES: Well, I think we permitted, I permitted our previous witness to name the five largest competitors, I believe, or four largest.

MR. KRULLA: Four.

MR. TOPKIS: Talking then about manufacturers, I thought.

By Mr. Krulla:

Q Mr. Kuehn, do you have any basis for knowing who the four or five largest manufacturers of inhalation anesthetic equipment are?

A Simply from the association in the industry for so many years.

Q That is going back to 1949?

A Correct.

JUDGE BARNES: All right, I will permit you to ask him that question.

By Mr. Krulla:

Q Mr. Kuehn, can you tell me who the four or five largest inhalation anesthetic equipment manufacturers are in the United States?

A Ohio Medical Products, Forreger, HarLake and Dupaco.

JUDGE BARNES: Is that Harris Lake?

THE WITNESS: And Quantiflex.

JUDGE BARNES: Is HarLake Harris Lake?

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THE WITNESS: Yes. Harris Calorific.

By Mr. Krulla:

Q Mr. Kuehn, do you know who manufactures quantiflex?

A Fraxer Swcatman, Incorporated, in Lancaster, New York.

Q Mr. Kuehn, can you tell me if these five firms were listed in any particular order? Was there any ranking given implicit in your answer?

A Well, the first three were in priority of where I believe they belong as far as position in strength is concerned.

MR. TOPKIS: Your Honor, I don't want to clutter up the record with objections. I objected to this testimony on the prior witness. I assume Your Honor's rulings would be the same.

JUDGE BARNES: It would.

MR. TOPKIS: May I have a continuing objection?

JUDGE BARNES: Yes.

MR. TOPKIS: Fine.

By Mr. Krulla:

Q Do you have or do you know who is the largest manufacturer in terms of sales?

A Ohio.

Q Or in value of shipments of ---

A Ohio Medical Products.

JUDGE BARNES: I believe you said you named the first three in order of their size, in your ---

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THE WITNESS: Estimation.

JUDGE BARNES: Estimation?

THE WITNESS: Yes.

By Mr. Krulla:

Q Mr. Kuehn, does Ohio Medical Products have a parent organization?

A Airco, Air Reduction Corporation.

Q Based on your experience in the inhalation anesthetic equipment industry in the United States, do you have any knowledge or belief as to what the market share of the largest firm in the inhalation anesthetic equipment market is?

MR. TOPKIS: Objection, Your Honor.

JUDGE BARNES: I think we need some background information before you can ask him a question about that. Does he know what the total market is, and does he know who the industry leader is, and so forth. Questions of that nature.

By Mr. Krulla:

Q Mr. Kuehn, do you know what the total market sales of inhalation anesthetic equipment are?

JUDGE BARNES: I am sure he does not know.

By Mr. Krulla:

Q Do you have an estimation of the total sales of inhalation anesthetic equipment in the United States in 1972?

JUDGE BARNES: Here again you should frame your question more precise at the manufacturer level, at the

ms-16

production level.

By Mr. Krulla:

Q At the manufacturing level.

A As an estimate only, I believe it is in excess of $6 million.

You are talking about surgical anesthesia machines only?

Q No, Mr. Kuehn, including combining dental analgesia equipment, which I believe you indicated was part of anesthetic equipment, disposable items, plastic sundries, accessories, and anesthetic or hardware equipment, total market sales.

JUDGE BARNES: Are you including veterinary in this?

MR. KRULLA: Including veterinary.

MR. TOPKIS: Well, now, this is, I take it, counsel's definition.

JUDGE BARNES: I take it he is telling Mr. Keuhn what he wants you to consider when you estimate the total market. I take it it is all the inhalation equipment and accessories.

MR. KRULLA: That is correct, rather than the initial answer which I believe the witness has indicated is only anesthesia machines.

THE WITNESS: I don't know, I would make an estimate on surgical anesthesia and dental analgesia, and I have no feel whatsoever for the veterinary market.

MR. KRULLA: Okay.

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Could we have a minute, Your Honor?

By Mr. Krulla:

Q Mr. Kuehn, do you know what amount of capital is needed to ---.

JUDGE BARNES: Have you withdrawn your other question?

MR. KRULLA: I withdraw the other question.

By Mr. Krulla:

Q What amount of capital is needed to enter manufacturing distrubiton of inhalation anesthetic equipment in the United States?

MR. TOPKIS: Objection, Your Honor. You know you can get into a business by various ways, and in various degrees of intensity.

JUDGE BARNES: I think you have got to tell him what kind of business you want to go into, and how extensive, and do you want to manufacture or do you want to sell, do you want to distribute?

By Mr. Krulla:

Q Mr. Kuehn, if a firm, or a firm who is not in the United States' inhalation anesthetic equipment market, that firm seeks to enter the market via a grass roots entry, as a manufacturer and distributor on a national scale, what would be required?

JUDGE BARNES: By way of what?

MR. KRULLA: By way of capital.

MR. TOPKIS: Objection, Your Honor. I have great

ms-18

respect for Mr. Kuehn, but he has been candid enough to tell us that what he makes is baralyme, and that is all, for all practical purposes. And asking him what it would cost to go into other businesses on a broad range it seems to me is going behond his asserted competence.

JUDGE BARNES: Well, I will have to weigh that with his answer.

If you can, Mr. Kuehn, could you answer the question?

THE WITNESS: It is extremely difficult to put a dollar value on it, but the financing would be extremely substantial. To say in precise figures, I am not in the position to answer that question.

By Mr. Krulla:

Q And what degree of technology would be needed?

A Considerable.

JUDGE BARNES: Technology in what areas, Mr. Kuehn?

THE WITNESS: Research and development, manufacturing know-how, the fine art of manufacturing.

By Mr. Krulla:

Q Would that also include marketing expertise?

A And marketing. Marketing and sales, yes.

Q Now, to enter via acquisition, rather than via grass roots entry, would the amount of capital be any less?

MR. TOPKIS: How could anybody know?

JUDGE BARNES: Let's drop that question.

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MR. KRULLA: Okay, I will withdraw the question.

JUDGE BARNES: Mr. Kuehn, was there any specific reason why Chemetron never became a manufacturer of the equipment?

THE WITNESS: We had tried on any number of occasions to become manufacturers, and it was simply a lack of resources at various stages that prevented us, and we chose to use outside vendor sources for the supply of this equipment.

JUDGE BARNES: Was there adequate outside vendor sources for this material?

THE WITNESS: Yes.

JUDGE BARNES: Was it a capital shortage or ---

THE WITNESS: No, certainly not a lack of capital. It was a lack of -- well, timing wasn't proper, and staffing was a complication. But it was in the long-range plan to either manufacture or acquire means in this direction.

By Mr. Krulla:

Q Mr. Kuehn, what would be the main barrier, if any, facing a company entering the United States? Inhalation anesthesia equipment via either grass roots entry or acquisition of a small company?

JUDGE BARNES: If there is a main barrier.

THE WITNESS: The main barrier would be the establishment, the firm establishment of the major companies involved in this particular product area today.

By Mr. Krulla:

Q Would there be any particular company in that position, to your knowledge?

MR. TOPKIS: Oh, I object, Your Honor.

By Mr. Krulla:

Q Who are these companies?

MR. TOPKIS: I object to that.

JUDGE BARNES: Now, I didn't get your answer. Your answer is your established firms would be your main barrier?

THE WITNESS: That is right.

JUDGE BARNES: I think he has named the established firms, hasn't he?

By Mr. Krulla:

Q In such an entry, would the means of entry which you had discussed with BOC in 1972 have been able to overcome this barrier you have just described?

MR. TOPKIS: Objection.

By Mr. Krulla:

Q In your business.

JUDGE BARNES: I don't understand the question myself, Mr. Krulla.

MR. KRULLA: Your Honor, we are talking about problems, barriers, confronting a firm entering the market.

JUDGE BARNES: He said the main barrier would be the existing companies.

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MR. KRULLA: Now, the manner of entry which we have developed previously, the possible entry, a possible joint or venture operation between BOC and Chemetron did not take place.

The witness has indicated a reason why it has not taken place. I am asking the witness, or I ask the witness, were such a proposal to come to fruition would such a joint venture operation have been voluable in light of the variables we have discussed.

THE WITNESS: It would have been ---

MR. TOPKIS: Objection.

JUDGE BARNES: What is your objection?

MR. TOPKIS: It calls for too much speculation. If I had wheels I would be a bicycle but unfortunately I don't have wheels.

MR. KRULLA: Your Honor, I am asking the witness who has been in the industry since 1949 whether the planned entity ---

JUDGE BARNES: All right, I will ask him the question.

Mr. Kuehn, could a joint venture with British Oxygen have been one means of overcoming the entry barrier of the existing companies in the industry?

THE WITNESS: On the part of Chemetron?

JUDGE BARNES: Yes.

THE WITNESS: Yes, it would have been simpler.

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JUDGE BARNES: And why?

THE WITNESS: Combined R&D, combined resources as far as manufacturing, combined fine arts and activities in the marketplace.

JUDGE BARNES: Would the name have anything to do with it?

THE WITNESS: British Oxygen?

JUDGE BARNES: Did they have an accepted tradename in the United States?

THE WITNESS: No.

JUDGE BARNES: Did Chemetron?

THE WITNESS: Very much so.

By Mr. Krulla:

Q Mr. Kuehn, would the combination of Airco's Ohio Medical, Fraser Sweatman and Harris Lake have any effect in your opinion upon the inhalation anesthetic equipment market in the United States?

MR. TOPKIS: Is that the end of the question? If so, Your Honor, I think that is one of the questions that Your Honor must pass on.

JUDGE BARNES: That is an ultimate question, I think. In fact, I think this has come to pass, has it not?

MR. TOPKIS: Yes. Well, to the degree of 35 percent acquisition by BOC of Airco stock.

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By Mr. Krulla:

Q Mr. Kuehn, when you were General Sales Manager for Chemetron's Medical Gases Division, did you consider what the effect on Chemetron might be, or would be, of BOC's acquisition of Airco?

MR. TOPKIS: Objection.

JUDGE BARNES: He can answer, did he consider it.

THE WITNESS: I did consider it, yes.

By Mr. Krulla:

Q And what did you conclude?

MR. TOPKIS: I object.

JUDGE BARNES: Well, I will permit you to answer, Mr. Kuehn, what you considered the effect would be on Chemetron's operations.

THE WITNESS: It would make it all the more difficult for the Medical Products Division of Chemetron to function successfully in the market. It would provide barriers of extreme difficulty.

MR. KRULLA: We have no further questions, Your Honor.

JUDGE BARNES: Let's take a five-minute recess before cross-examination.

(Brief recess.)

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JUDGE BARNES: Are you ready to proceed?

MR. TOPKIS: If YOur Honor please.

Mr. Kuehn.

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CROSS-EXAMINATION

By Mr. Topkis:

Q Mr. Kuehn, this man, Ray Williams, whom you met in 1972, he had been recently hired when you met him, by BOC, hadn't he?

A Yes.

Q He had previously been working for some company on the Continent of Europe, right?

A Yes.

Q And it was an office equipment firm, is that right?

A I don't know that.

Q In any event, when he came to see you, he was on a kind of a familiarization tour, isn't that right?

A Yes, yes, sir.

Q Thank you. To learn what he could about the industry?

A Correct.

Q And you said that he told you that BOC was contemplating entering the inhalation anesthesia field -- or, no, contemplating entering the medical field in the United States, right?

A Correct.

Q He told you, in fact, that the fields in which BOC were particularly interested were orthopedics and electronic equipment, isn't that right?

A Not completely correct; anesthesiology, respiratory care.

Q Anything else?

A And gases.

Q Gases, medical gases?

A Correct.

Q You didn't have any conversation with him about any gases other than medical gases, did you?

A None whatsoever.

Q Referring, again, to electronic equipment, didn't he tell you that BOC was particularly interested in the use of electronic equipment in the respiratory care and anesthesia fields?

A We talked about it, yes.

Q He told you, did he not, sir, that in his view, grass roots entry for BOC was not possible, because its equipment was not acceptable in the United States?

A We mutually agreed to that, yes.

Q Now, would it be ---

JUDGE BARNES: Let me interrupt here and just go back one step.

Did you discuss electronic equipment with Mr. Williams? I didn't understand exactly what you discussed with him.

THE WITNESS: We, I didn't, we didn't single out -- we singled out electronic equipment as far as its application in anesthesia and in respiratory care.

And the electronic equipment we talked about was the fact that they were at the process of a breakthrough on an electronic version of the Wright respirometer.

By Mr. Topkis:

Q And what is the Wright,, that is W-r-i-g-h-t?

A Yes.

Q Respirometer, sir?

A It is a unit for measuring the respirations of a patient.

Q And how would use the electronic science in that?

A They were in the process of taking it from a manual-type of an instrument, to an electronic instrument. And we never got into the depth of how they were doing it.

Q I see.

Now, you tell us that these discussions, these explorations, with BOC's Representatives fell apart, ultimately, got nowhere?

A Yes.

Q And the reason was, was it not, that Chemetron and BOC each wanted to be 51 percent, top dog? Right?

A Correct.

Q The old question of who's on top.

Now, you listed before, five companies, Ohio, Forreger, Harris Lake, Dupaco and Quantiflex, as being the most significant anesthetic equipment manufacturers; do you remember that testimony?

A Yes.

Q That is an accurate listing, is it not, sir, of the leading anesthetic machine manufacturers?

A That is right.

Q Not of anesthetic equipment and related accessories, necessarily?

A I, then, said that the top three were the ones in position of priority as far as the specialty of anesthesiology was concerned.

Q And the other two, you are not so familiar with their operations, is that it?

A Oh, I am familiar with them, but they don't have the broad package to meet the requirements of the specialty.

Q I see.

A They are segmented.

Q All right.

Now, Quantiflex is the trade name of Fraser Sweatman?

A Yes.

Q You have made approaches to Fraser Sweatman with regard to the possibility of acquiring Quantiflex, isn't that right?

A Pre- and post, the BOC position, yes.

Q Acquiring the whole Fraser Sweatman operation?

A Yes. In fact, we were a bidder at the time that BOC was successful.

Q Well, what BOC bought was Cyprane in England, is that

right?

A Which owns the other companies?

Q Which owned Fraser Sweatman, England. Were you bidding for Cyprane?

A We were bidding for the identical package which BOC was bidding for.

Q So, do you feel that Chemetron has a strong marketing force in the area of anesthesia?

A Yes.

Q Those 75 salesmen you spoke of, do they sell anything other than inhalation anesthesia equipment?

A Very definitely.

Q What else do they sell, sir?

A What we call construction equipment, group 1 merchandise, which is piping.

Q I take it piping is a very significant part of the Chemetron medical operation, is that right?

A Yes, and success in selling it is through the anesthesiologist.

Q I see. So, you think that you get a particular advantage in your sales of anesthesia equipment growing from your relation with the anesthesiologist through pipeline, or is it the other way around?

A I don't understand your question.

Q Where does the strength come from?

JUDGE BARNES: I was wondering about that.

Are you stronger in pipeline or stronger in the anesthesia equipment?

THE WITNESS: WE are stronger in pipeline.

By Mr. Topkis:

Q Okay.

Now, you talked before, Mr. Kuehn, about something I consistently got wrong, baralyme. That is a form of sodalime, is that right?

A No, sir.

Q I keep trying to learn and keep getting frustrated.

A It is a competitive product to sodalime.

Q To sodalime?

A Yes.

Q What is baralyme, a trade name?

A Yes.

Q What is the underlying ingredient?

A Barium hydroxide, calcium hydroxide, potassium and water.

Q And this is the mixture that Chemetron has developed for the purpose of carbon dioxide absorbents?

A And in the USP, it is identified as barium hydroxide lime.

Q Are there a number of manufacturers of barium hydroxide lime?

A No.

Q How many are there?

A One -- Chemetron.

Q You are in the happy position?

A Perhaps, yes.

Q Well, actually, there are a number of other carbon dioxide absorbent materials on the market, are there not?

A Only one other made in the United States.

Q What is that, sir?

A That is, made by Dewey-Almy, Cambridge, Massachusetts.

Q D-e-w-e-y and A-l-m-y?

A Correct.

Q That is a rather leading chemical company?

A Yes, W. R. Grace.

Q W. R. Grace owns it?

A Yes.

Q How about Sodalime?

A That is Sodalime.

Q Oh, that is Sodalime?

A Yes.

Q I knew if I keep going around in circles, I would wind up nowhere.

Is there anything else that can be used for the purpose of absorbing carbon dioxide?

A Not successfully today, in the eyes of the specialty.

Q I don't want to go too deeply into your sales secrets, but are you bigger than Dewey-Almy, or are they bigger than you,

in this business?

A They are bigger than we are.

Q By far?

A Considerably, yes.

Q Are they also in the anesthesia machine business?

A No, they market that product exclusively through Ohio Medical Products and Puritan-Bennett Corporation. They are strictly a manufacturer.

Q I see.

You said in discussing or in defining for Complaint Counsel the term inhalation anesthetic equipment, that you included in that term dental anesthesia, dental analgesia equipment. Do you remember that testimony?

A Yes.

Q Now, to your understanding, there are other companies that do not include dental anesthesia equipment in their understanding of the term; that is right, isn't it?

A Yes.

Q And there are many companies which do and many companies which don't make dental analgesia equipment?

MR. KRULLA: Objection, Your Honor.

By Mr. Topkis:

Q Regardless of whether they make or don't make inhalation anesthesia equipment?

JUDGE BARNES: What is your objection?

MR. KRULLA: Objection, Your Honor.

We have better witnesses to ask as to what their views on the definition by other companies of inhalation and anesthesia.

JUDGE BARNES: Well, bring them on; but meanwhile, we have this witness.

By Mr. Topkis:

Q Do you have my question in mind, or would you like me to repeat it?

A Repeat it.

Q Certainly, sir.

There are companies that make inhalation anesthesia equipment which also make dental analgesia equipment, right?

A Yes.

Q There are companies which make anesthesia equipment which do not make dental analgesia equipment, right?

A Yes.

Q And, there are companies which make just dental analgesia equipment and don't make inhalation anesthesia equipment?

A That is right.

Q Now, you were listing medical gases before. And you told us about oxygen, and nitrous oxide and cyclopropane and ethylene.

Are there any other gases that are customarily regarded as medical gases?

A Not as far as Chemetron is concerned, no.

Q Well, how about so far as the industry is concerned?

A They are the major gases insofar as the industry is concerned; true gases that are put in the cylinders.

Q There are other gases, I suppose, that are specific anesthetic or analgesic agents, is that right?

A Yes.

Q Does Chemetron market any of those?

A No.

Q Mr. Kuehn, Chemetron is today moving aggressively in the surgical anesthesia field, isn't it?

A Attempting to.

Q Well, it has recently bought the Hammond Precision Company?

A No, not recently. That was an acquisition that took place pre-1965.

Q I see. Well, does Chemetron today have under consideration building its own anesthesia machine?

A We have been approached by outside sources to consider this and take it under advisement, but I don't think it can be stated that it is under consideration.

We are being, trying to, being sold on the idea to do this. It was not an exploratory program that was initiated in the Medical Products Division.

Q I see. You would believe, however, that Chemetron, however,

that Chemetron has the skills required to develop a surgical anesthesia machine, would you not?

A In-house?

Q Yes, sir. Or available to it form outside?

A Available to it, but not in-house.

Q All right. And it certainly has the money, if it wanted?

A Adequately capitalized, yes.

Q Right.

Mr. Kuehn, is it your understanding, sir, that Chemetron is larger or smaller in medical gases field in terms of sales than Ohio?

A I believe them to be smaller when you take both retail and wholesale into consideration.

JUDGE BARNES: Ohio Products is smaller?

THE WITNESS: No, we are smaller.

By Mr. Topkis:

Q You are smaller?

A Did I misunderstand your question? I am sorry.

Q No, that is right, I am moving towards understanding. When you say taking retail and wholesale together, what do you mean by that, sir?

A Well, Chemetron is involved in the, essentially, in the retail endeavors, up through certain limited type of distributor, the same as Ohio Medical Products.

But beyond that, Ohio Medical Products also wholesales

nitrous oxide, and cyclopropane, I believe. They did as of May 4. And I don't think there has been any change since.

Q Mr. Kuehn, you were asked, I think, by Complaint Counsel, a bit before as to your impression as to the consequence of BOC's acquisition of Airco stock. Do you remember that question?

A Yes.

Q That was thinking that you engaged in after you learned that BOC had acquired 35 percent of Airco, isn't that right? You hadn't been doing any brooding beforehand?

A No.

Q And even though you had had this conversation that you reported with Mr. Williams, you never gave BOC's possible entry into the American Medical field a thought, did you, in terms of your own conduct?

A Oh ---

MR. KRULLA: Objection, Your Honor.

THE WITNESS: Oh, to the contrary, I had; I had, right.

By Mr. Topkis:

Q Well, you never let it affect any business decision you made, did you?

A No.

Q You never made a price decision that was affected by whether BOC might or might not enter?

A Certainly not.

Q Nor a production decision, nor an R and D decision?

A No.

Q And Chemetron has on occasion made market analyses reports or received market analyses reports relating to medical gases, has it not?

A I don't understand your question.

Q Specifically, sir, Chemetron has had it suggested that the Swedish firm, Aga, A-G-A, might enter the medical gases field in the United States, isn't that right?

A Certainly, 10 years ago, or more.

Q Not more recently?

A Definitely not to my knowledge.

Q Okay.

A And I don't believe anyone in Chemetron.

Q Okay, Okay.

You were speaking before of companies having fairly broad range of product, when you were listing the significant companies in the field. You didn't mention Bird, B-i-r-d.

A No, I did not.

Q Is that because Bird does not have a full range of equipment?

A In my interpretation, that is correct.

Q Right.

A They are specialized.

Q Right. But being specialized, they are one of the most respected names in the medical specialty field, are they not?

A Certainly in the area that they are working in, yes.

Q And they are working in the inhalation area, isn't that right?

A Yes.

Q They don't have an inhalation anesthesia machine at the present time, is that right?

A To the best of my knowledge, they do not.

Q Well, you hedge by saying to the best of your knowledge?

A I know of none, I know of none.

Q But the possibility that they might enter the inhalation anesthesia business has often occurred to you, has it not?

A Definitely not.

Q It has not?

Does that strike you as your being the only man in this business to whom that might not have occurred?

A I like being so identified.

MR. KRULLA: Objection, Your Honor. The witness has necessarily answered.

JUDGE BARNES: That is all right.

MR. KRULLA: Would you read back the answer?

(The record was read by the Reporter.)

By Mr. Topkis:

Q Mr. Kuehn, there are a number of drug companies working

on respiratory treatment agents, are there not?

A Yes.

Q Can you name some of them for us?

A Searle.

Q S-e-a-r-l-e, is that?

A Yes.

Q Anyone else?

A I believe Johnson and Johnson.

Q Anyone else?

A The one that is owned by American Home Products. I can't think of the name of it. It escapes me.

MR. THURMAN: Your Honor, we would like to move to strike the answer to the question that was not into the record by Mr. Topkis.

It is what other people believe, which is not part of the record.

"Would it strike you that you are the only one that would not believe this?"

So, we would like to strike that question and answer.

MR. TOPKIS: I will consent.

JUDGE BARNES: All right, the question and answer can go out.

By Mr. Topkis:

Q And the company that you are trying to think of was Ayerst, isn't it, A-y-e-r-s-t?

A Yes.

Q And all of those companies are interested in respiratory care?

A Yes.

Q There are other companies which are interested in respiratory care as well?

A I believe there are, yes.

Q And those companies by reason of that interest are acquiring familiarity with doctors and hospitals and staff engaged in this area, are they not?

MR. KRULLA: Objection, Your Honor, this is outside the scope of the direct.

JUDGE BARNES: I think this has to do with the industry.

MR. KRULLA: Your Honor, this is an actual competition case, with respect to the inhalation anesthesia markets and inhalation therapy market. Mr. Topkis is going into an area of potential competitor of these markets.

JUDGE BARNES: The answer will be weighed accordingly. You may proceed, Mr. Topkis.

By Mr. Topkis:

Q Would you answer the question, please?

A Would you rephrase it?

MR. TOPKIS: Surely. Actually, I think in the light of what Counsel has just stated, Your Honor, I will not press it.

JUDGE BARNES: All right.

MR. TOPKIS: Now, I think, in fact, that concludes my questioning and I thank you, Mr. Kuehn.

MR. WOLLEN: No questions, Your Honor.

XXXXX REDIRECT EXAMINATION

By Mr. Krulla:

Q Mr. Kuehn, referring back to your discussions with Mr. Williams of BOC, did he tell you that BOC would enter the United States market whether or not Chemetron and BOC got together?

A Yes.

MR. TOPKIS: I was starting to object, but, all right.

JUDGE BARNES: That was rather a leading question, Mr. Krulla.

MR. TOPKIS: I think I will move to strike the question and answer, Your Honor.

JUDGE BARNES: Well, I don't want to foreclose you from this avenue but I believe the question was rather leading. Why don't you ask him about his entry?

By Mr. Krulla:

Q Mr. Kuehn, on cross-examination, the point was raised that Mr. Williams might be simply trying to educate himself personally about medical equipment, inhalation anesthetic equipment, inhalation therapy equipment and medical gases.

Did he express this as his intention to you, in conducting discussions with you?

MR. TOPKIS: Did he express what in his conversation?

MR. KRULLA: Self-education.

JUDGE BARNES: Did he indicate to you that his interest was in self-education?

THE WITNESS: He indicated to me that his interest and reason for being here was to learn as much as he possibly could about activities that related to their interests in this country, with in mind that at the same time he was, they were evaluating entry into this market.

By Mr. Krulla:

Q What did Mr. Williams say to you with reference to BOC entry into the United States market?

A They would logically like to do it on a venture basis, and this is how Williams and I got to talking about the possibilities of doing something with Chemetron.

And, then, it grew from there, that when this didn't materialize, they would seek other avenues. But they wanted to be in this market because it represented the biggest market potential to them as far as their worldwide organization.

MR. KRULLA: We have no further questions, Your Honor.

MR. TOPKIS: No recross, Your Honor.

JUDGE BARNES: I want to ask you about which market represented the biggest market to them?

THE WITNESS: The United States.

JUDGE BARNES: In what product category?

THE WITNESS: Anesthesiology, medical gases, inhalational therapy.

JUDGE BARNES: Any other questions?

MR. TOPKIS: No, Your Honor.

MR. KRULLA: No.

JUDGE BARNES: Thank you, Mr. Kuehn. We appreciate your testimony.

THE WITNESS: Thank you.

(Witness excused.)

JUDGE BARNES: Is that it for today?

MR. THURMAN: Yes. We have nothing further today, Your Honor.

JUDGE BARNES: I have got a note from my Secretary which says we may have this room for the balance of the week.

MR. TOPKIS: Oh, great.

JUDGE BARNES: All right, we will adjourn until 9:30 a.m. or 10 a.m., what is the choice here?

MR. TOPKIS: Whatever conveniences Your Honor.

MR. YOUNGWOOD: We have three witnesses.

JUDGE BARNES: Three? 9:30 a.m., tomorrow.

MR. TOPKIS: 9:30 a.m.

JUDGE BARNES: 9:30 a.m.

(Whereupon at 4:27 p.m. the hearing recessed to reconvene at 9:30 a.m., Tuesday, May 21, 1974.)

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BEFORE THE

FEDERAL TRADE COMMISSION

IN THE MATTER of	
BRITISH OXYGEN COMPANY, LTD., BOC FINANCIAL CORPORATION, BOC HOLDINGS, LTD., BRITISH OXYGEN INVESTMENTS, LTD., AIRCO, INC.	Docket No. 8955

Room 7314 - 1101 Building
11th and Pennsylvania Avenue,
N. W.
Washington, D. C.
Tuesday, May 21, 1974

Met, pursuant to recess, at 9:30 a.m.

BEFORE:

ERNEST G. BARNES, Presiding Administrative Law Judge

APPEARANCES:

K. KEITH THURMAN, GORDON YOUNGWOOD, DON PURCELL, DARYL NICKEL, RHETT KRULLA and JOHN HOAGLAND, on behalf of the Federal Trade Commission.

JAY H. TOPKIS, LEWIS A. KAPLAN and MOSES SILVERMAN, Paul, Weiss, Rifkind, Wharton and Garrison, 345 Park Avenue, New York, New York 10022, on behalf of Respondent, British Oxygen Company, Ltd.

R. BRUCE MacWHORTER, R. WOLLEN, J. R. HAWKINS, II, Shearman and Sterling, 53 Wall Street, New York, New York 10005, on behalf of Respondent, AIRCO, Inc.; and

ROBERT SAYLER, 888 - 16th Street, N. W., Washington, D. C. 20006, on behalf of Air Products Company.

P R O C E E D I N G S

JUDGE BARNES: Good morning.

MR. TOPKIS: Your Honor, before we get started with our first witness, could I just ask two questions of Complaint Counsel through Your Honor that were brought to mind by some testimony we had yesterday?

The first question is, do Complaint Counsel regard dental analgesia equipment and accessories as coming within the inhalation anesthesia market which they assert?

And the second question is, do they regard veterinary anesthesia equipment and accessories as coming within the inhalation anesthesia market which they assert?

JUDGE BARNES: Very good questions.

I had some thoughts along those lines myself.

Mr. Youngwood.

MR. YOUNGWOOD: Your Honor, if we may, I think we can discuss that at the conclusion of Dr. Hedley-Shyte's testimony. I think that might be a more appropriate time.

JUDGE BARNES: When would he be testifying, this morning?

MR. YOUNGWOOD: Yes, Your Honor. This is Dr. Hedley-Whyte.

JUDGE BARNES: All right. Is that a sufficient answer right now?

MR. TOPKIS: Well, the problem is -- I don't ask the

questions idly -- the problem is, we have to tailor our cross-examination to the answers. I don't know what Dr. Hedley-Whyte is going to testify about but it occurs to me we ought to know, and there doesn't seem any guess about it, either yes or no.

JUDGE BARNES: You should have a contention about it, Mr. Youngwood.

MR. YOUNGWOOD: Yes, Your Honor. We are including the dental analgesia and veterinary analgesic and equipment.

MR. TOPKIS: And dental analgesic equipment, as well?

MR. THURMAN: As long as it is inhalation, it will be counted.

JUDGE BARNES: The magic word is inhalation?

MR. THURMAN: Yes.

MR. TOPKIS: Okay.

JUDGE BARNES: You have inhalation surgery?

MR. TOPKIS: Breath in, needles out, okay.

MR. THURMAN: That is right.

Your Honor, we offered CX-322 yesterday for identification. It was held up until Mr. Topkis checked on it. We would like to withdraw it. We don't think it is worth going through the in Camera process.

JUDGE BARNES: Thank you.

XXXXX

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DR. JOHN HEDLEY-WHYTE was thereupon called as a witness for the Commission and having been first duly sworn, testified as follows:

XXXXX

DIRECT EXAMINATION

By Mr. Thurman:

Q Will you state your name and address, please?

A John Hedley-Whyte, Harvard Medical School, Boston, Massachusetts.

Q And what is your profession?

A I am an anesthesiologist.

Q Dr. Hedley-Whyte, what is your educational background?

A I was educated as an undergraduate at Cambridge. I went through the processes leading to the equivalent of the MB. degree at Cambridge, which I got in 1958.

For the process of getting the equivalent to the MD., which in England is called an MB, I went for the last three years of my medical training to St. Bartholomew's Hospital in London, where most of the final three-year class are from Oxford or Cambridge.

Following my graduation in 1958, I interned in medicine and in surgery at St. Bartholomew's Hospital. I, then, became a resident anesthesiologist at St. Bartholomew's Hospital. From there, I was recruited to the Massachusetts General Hospital in Boston, Massachusetts, where I repeated my anesthesia

residency to meet the American Board of Anesthesiology requirements.

I became Chief Resident in 1961-1962 at the Massachusetts General Hospital. I was put on the Staff and given a Staff appointment at Harvard, in 1961. In 1964, I obtained the American Board Certificate of Anesthesiology. In 1967, Harvard asked me to set up a new professorial department on the Harvard Medical School Campus at the Beth Israel Hospital.

Accordingly, I effectively left the Massachusetts General Hospital and set up a professorial department in 1967. Because of my age, I was made an Associate Professor at the start of setting up this department but in 1969, I was made a Full Professor at Harvard Medical School and I have done that since 1969.

And since 1967, I have been Head of Anesthesia at the Beth Israel Hospital, which is one of the Harvard teaching hospitals on the Harvard Medical School campus.

The only additional duties that I have assumed since 1967 at Harvard have been the last year, I was made Secretary of the Faculty of Medicine, Harvard.

Q Doctor, have you held membership in professional societies?

A Yes. I am a member of the American Society of Anesthesiologists, which is the premier society of anesthesiologists in this country and I am Chairman of their committee on Mechanical Equipment.

This Chairmanship carries with it the Chairmanship of the American National Standards Institute Committee Z-79, since by appointment to the American National Standards Institute, the American Society of Anesthesiologists holds the Secretariat of the Z-79 Committee.

I am a member of the American Physiological Society and the Association of University Anesthetists, of numerous other professional societies.

Q The other societies listed in your CV?

A I am a Fellow of the Massachusetts Medical Society; I am a member of the International Anesthesia Research Society; I am a Member of the Royal College of Surgeons of England; I am a Fellow of the American College of Physicians.

Q Have you received any honors, Doctor?

A I was Hichens Prize man, at St. Bartholomew's Hospital Medical School when I was doing my clinical training leading to my Cambridge medical degree.

I was Evelyn Rothschild Scholar at Cambridge; and I gave the Litchfield Lectureship at Oxford University in 1971.

Q Have you engaged in other professional activities which you haven't named?

A No, I have been a full-time, salaried anesthesiologist since I qualified as a physician, and I have never made any other money except from lecture, lecture fees.

I don't know, I make about $2,000 a year, I suppose on

lectures' fees.

Q Have you had any articles or books published, Doctor?

A I have about 55 or 60 articles published in the professional literature. We wrote a book that has sold 25,000 copies and is in its ninth or 10th printing.

I have written about 25 or 30 abstracts and numerous chapters in other people's books.

MR. THURMAN: Excuse me a minute, Your Honor.

Your Honor, Dr. Hedley-Whyte has written so extensively, rather than have him enumerate one-by-one, of his writings, Complaint Counsel offers CX-323-A through G, which is the Curriculum Vitae of Dr. John Hedley-Whyte.

JUDGE BARNES: Have you shown it to ---

MR. TOPKIS: Your Honor, We have not previously been furnished with a copy of this. Oh, I am sorry, we have? When, yesterday?

Well, I am sure this is accurate and quite satisfactory and we have no objection to it. But I may say that I was wrong as to this one but there are a number of numbered exhibits of which we have not yet received copies and I would suggest that our consideration of them would be greatly facilitated if we would be supplied with them forthwith.

JUDGE BARNES: I think they should be.

MR. THURMAN: I agree, they should be. How many do we have? Have we furnished them? Are we lacking some?

JUDGE BARNES: I imagine this latest list from 305 through 321,is that the group you are speaking of?

MR. TOPKIS: That is right, Your Honor.

MR. THURMAN: To save time, we will furnish them a copy just as soon as possible which will be this morning, I hope.

JUDGE BARNES: That should have been, you know, done over the weekend.

MR. THURMAN: I agree.

JUDGE BARNES: There is no objection to Commission Exhibit 323?

MR. WOLLEN: No, Your Honor.

MR. TOPKIS: No, Your Honor.

JUDGE BARNES: I will receive Commission Exhibit 323-A through G in evidence.

XXXX (Commission Exhibit CX-323-A - G was received in evidence.)

THE WITNESS: There is only one thing in the Curriculum Vitae that may require clarification, the M.D. granted in 1972, is a degree in England that is given to about three percent of graduates who become academic internists and isn't equivalent to the American M.D. degree.

The equivalent in Britain is the M.B. degree and I obtained the Cambridge M.D. based on the publications which are about one through 40 in my Curriculum Vitae.

MR. THURMAN: Thank you, Doctor.

By Mr. Thurman:

Q Doctor, I believe that you stated that your present positions are Anesthetist-in-Chief, Beth Israel Hospital Board of Consultation, Massachusetts General Hospital; and Professor of Anesthesia, Harvard University, is that correct?

A Correct.

Q And what is the location of Beth Israel Hospital?

A It is on the Harvard Medical School campus in Boston, Massachusetts.

Q And what are your duties and responsibilities as anesthetist-in-Chief at Beth Israel Hospital?

A I am responsible, ultimately responsible to the Board of Trustees for the administration of about 8-1/2 thousand anesthetics per year.

I am responsible for the teaching in anesthesia and respiratory care of approximately one-third of the Harvard Medical students, who come through our service.

And I am responsible to the University for the conduct of the research which is done in our Department.

Q And what were your duties at Massachusetts General Hospital?

A I was,in a manner of speaking, training for the job that I am currently doing. I divided my time about equally between teaching Harvard Medical Students, doing clinical anesthesia

on patients at the Massachusetts General Hospital and doing research funded by the National Institutes of Health.

Q Did you state how long you had held the position as your present position?

A Since 1967. I became a full Professor in 1969 but that didn't change my duties.

Q And you are at the Beth Israel Hospital?

A Since 1967.

Q 1967?

A And, essentially, I am there full-time. The duties on the Board of Consultation at the Massachusetts General Hospital are purely honorary and given to people who have been on the Staff there for some time who have left to take jobs that they think are adequate.

Q I suppose, Professor of Anesthesia at Harvard speaks for itself, doesn't it?

MR. TOPKIS: I am sorry, could I have that ---

By Mr. Thurman:

Q I suppose it speaks for itself, without elaborating what your duties are, as a professor?

JUDGE BARNES: Oh, I think so.

MR. TOPKIS: Oh.

MR. THURMAN: Your Honor, Complaint Counsel offers Dr. Hedley-Whyte as an expert in the field of anesthesiology.

JUDGE BARNES: I assume that is just a statement you

are making?

MR. THURMAN: Yes. I don't know whether they wanted to go into qualifications at this time or ---

JUDGE BARNES: No, I will accept him as an expert.

MR. THURMAN: Accept his as an expert.

By Mr. Thurman:

Q Doctor, would you define inhalation anesthetic equipment and accessories?

A The equipment for inhalational anesthesia can be defined as that equipment that is necessary and useful for the giving of inhalational anesthesia to patients.

There is a list of specifications, A through P, in a document which is entitled "Specifications, One, documents" or in lieu thereof, a verified statement setting forth, and so forth, which gives a reasonable list.

If you like, I will read off the list: A. Anesthesia machines, ---

MR. TOPKIS: Excuse me, please. We have all got that list.

JUDGE BARNES: Yes.

MR. TOPKIS: I don't think there is any need to take the Doctor's ---

MR. THURMAN: It is in evidence also.

JUDGE BARNES: Yes.

THE WITNESS: I would add to that list also, direct

laryngoscopes under P, making Q other, specify.

I don't wish to specify any other, because I think they are exceedingly small parts of the overall picture.

By Mr. Thurman:

Q Doctor, in your definition of inhalation anesthetic equipment and accessories, does this include dental anesthesia equipment?

A Yes, it does. I would, however, point out to everybody that it includes dental anesthesia and not dental analgesia equipment.

Q Would specify the difference, or explain the difference?

A Dental anesthesia is the rendering of a dental patient, a patient for dentistry, unconscious, by the giving of anesthetic drugs.

Dental analgesia is the relief of pain associated with dental procedures.

Q How are these administered?

A Dental anesthesia is generally given by the use of anesthetic gases associated with the use of intravenous agents that are frequently barbiturates. The idea being to render the patient unconscious during the period of time for which the dental work is being done.

Occasionally, it is desired to not truly render the patient unconscious but rather, to remove his memory of the unpleasant event. But that is a semantic point which I don't

think need detain us.

Dental analgesia is generally given by the dentist employing a syringe and needle with procaine or xylocaine or some local anesthetic.

Dental analgesia, I think, must be far much more common in this country and throughout the world than dental anesthesia. I think each of us have been to the dentist, have had a nerve block for either tooth extraction or filling of teeth. But I would doubt if half the people in this room have been rendered unconscious for oral surgical or dental work.

Q Now, Doctor, in your definition of inhalation anesthetic equipment and accessories, does this include veterinary inhalation anesthetic equipment and accessories?

A I would include veterinary inhalational equipment, yes. The principles of giving inhalational anesthesia to mammals are the same as to the highest mammal of all, Man. And, I think it would be reasonable to include them in the same market, same definition.

Q Doctor, are human inhalation anesthetic machines ever used on animals?

A At Harvard Medical School, we frequently use human anesthesia machines on animals. The converse, however, is not true, or hardly ever true. I have never seen in 20 years a veterinary machine used on a human, although there are occasional case reports of a whale patient being anesthetized with some

veterinary equipment, but it is sufficiently rare to manage itself to get into the professional journals.

Q Doctor, I believe you have in front of you the list of items that make up the inhalation anesthetic equipment and accessories.

JUDGE BARNES: I think we ought to ---

By Mr. Thurman:

Q This is CX-316-A through C. Would you explain the use of each item on that list, on 316, CX-316-A?

A This is 316?

Q That would be 316-A, yes.

A 316-A?

A, anesthesia machines. These are the machines which control the amount of gas or anesthetizing vapor given to a patient. There are fairly rigid specifications set on the performance of these machines and they are relatively standardized throughout the world.

B, ---

MR. TOPKIS: Excuse me, before we go to B, unless my memory fails me, we had Mr. Schreiber take us through this list yesterday and tell us what all these pieces of equipment are.

I have no objection to repeating it, I suppose, but I can't see why we should bother.

MR. THURMAN: Your Honor, Mr. Schreiber certainly was not a medical doctor and interested in the medical function.

And this witness is the most qualified in the country, probably, to detail use.

JUDGE BARNES: You may proceed in your question. You may proceed with your answer, Doctor.

THE WITNESS: Thank you.

B, anesthesia vaporizers, I guess as defined by Mr. Schreiber in his book, would include those apparatus which is added to an anesthesia machine to vaporize anesthetic liquids, if the machine didn't have the particular vaporizer on it that you wanted to give to the patient.

Therefore, it is an accessory which can be brought in and added to the machine.

C, Rebreathing reservoir bags, are an attempt to conserve the amount of anesthetic used. Some anesthesia machines, particularly British and European ones, are designed so that there is no rebreathing of gases.

The American machines tend to have rebreathing systems attached; not, I think, for economy, since this country isn't noted for its economy of natural resources, but rather because of the advantage of the patient rebreathing their own moist gases.

If you are always giving fresh dry gases to a patient, their lungs and trachea tends to get dried out. The rebreathing system allows them to retain the moisture which is in their lungs and mouth.

D, anesthetic conducting tubes are a part of the anesthesiamachine which may be detached. They are generally made of semi-conductive rubber. And here, I think, I ought to point out a difference between inhalational anesthesia equipment and inhalational therapy equipment. And the use of the word "inhalation" in both sets of terms should not confuse you.

Inhalation just means that it is going into the mouth. One is anesthesia and the other is an attempt to make lung function better. But anyhow, anesthesia conducting tubes contain semi-conductive rubber.

The reason for the semi-conductivity is that if you have no conductivity, static electrical charges may build up and ignite a explosive anesthesia given to a patient.

If you had completely conductive tubes, you would be more likely to electrocute the patient from static condition in the operating room. In general, pieces of equipment that theoretically are interchangeable between inhalational therapy and inhalational anesthesia are not interchanged because of the increased cost of using semi-conductive rubbers in the operating room.

It would be somewhat analogous, I suppose, to using a Rolls Royce as a farm truck. It has been done in Australia but isn't generally widespread custom.

Do you wish me to proceed down the list; do you?

By Mr. Thurman:

Q Yes, please.

A E, is anesthesia airways. An airway is inserted in the mouth of a patient. Even if they have a trachael tube through the mouth into the voice box, but an airway is inserted to stop them biting down on the tracheal tube which is a rubber or plastic tube.

Anesthesia airways are almost exclusively used in inhalational anesthesia, rather than in inhalational therapy. And only very, very occasionally would you use an anesthesia airway on a semi-conscious patient, say after head injury, but hardly any used in inhalational therapy.

F, anesthesiol face masks which may be reuseable or disposable, are used for about 25 percent of anesthetics throughout the procedure in the majority of anesthetics. However, they are used at the beginning and at the end of the anesthetic while you are getting ready to pass the endotrachael tube through the voice box, the endotrachael tube being used to prevent the aspiration of stomach contents, which is one of the leading causes of death associated with inhalational anesthesia.

Anesthesiol face masks are used a little bit in inhalational therapy, of the fact that resuscitative bags which are left lying around to resuscitate people having cardiac arrests generally have some form of face masks, although frequently, it is a cheaper form, not made of semi-conductive rubber.

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The connecting Y pieces for face masks, these are detachable connections which lead to anesthesia hose and, then, to the anesthesia machine.

H, the adaptors and fittings, not included on the anesthesia machines, I suppose, these are the things that keep the trachael tube and the Y piece next to the mouth of the patient.

As you know, there is an almost infinite variety of movements operating on a patient; sometimes lying on their side, sometimes head up, and sometimes, even, head down, to help the patient with the surgery.

And there are attachments that are not terribly commonly used but facilitate these special surgical procedures.

I, Carbon dioxide absorption canisters. I said that the main technique of giving inhalational anesthesia in this country was a rebreathing technique.

Well, now, all of us are excreting carbon dioxide all the time and if this needs to be absorbed and it is absorbed by sodalime, which is used in carbon dioxide absorption canisters. Of course, there will be carbon dioxide absorption canisters used for other purposes.

For instance, space flight, you have to get rid of the CO_2 somehow for metabolic experiments but I would have thought that the overwhelming use in this country was in inhalational anesthesia.

Carbon dioxide absorption canisters are essentially not

used in inhalational therapy. Anesthesia flow meters, not included in anesthesia machines, occasionally, if you want to bring in a vaporizer, you want to bring in an additional flowmeter to monitor the flow of gas to vaporize the liquid in the vaporizer.

There is some slight use of anesthesia flowmeters in inhalational therapy but, again, it is an expensive alternative. If you run out of the conventional cheaper inhalational therapy flowmeters, you might get yourself through a long weekend when there weren't any supplies of anesthesia flowmeters but, unlikely.

K, Anesthesia carts are support carts to -- it is, rather like refueling a jet; you have to have all the drugs on your anesthesia flow-machines and drugs for all process; but for all eventualities which can occur during complex procedure; and the carts are just to support transport systems which are generally run by anesthesia orderlies, occasionally by nurse anesthetists; by people like myself in the middle of the night when no one else will work.

L Yokes, hand screws and valves not included in A. I suppose these are the spanners or wrenches that are used to maintain the anesthesia machines. They always seem to be stolen but they are an important part.

M Anesthesia ventilators. I would point out to you that a lot of surgical procedures now take eight or more hours

and most major surgery is done with the ventilation of the patient totally controlled.

We have facilities now for measuring the level of carbon dioxide and oxygen in the patient's arterial blood and an analogy really might be an automatic pilot.

We can set a ventilator to maintain a given acidity in the patient's blood and by monitoring that acidity and changing the ventilator setting, we can do a pretty good job until we come to, you know, except takeoff and landing.

They are not perfect, the ventilators. The change in the heart output of the patient will alter the amount of ventilation that has to be given to a patient. And the design of anesthesia ventilators is pretty much separate from a design of inhalational therapy ventilators.

Now, there are some exceptions. There have been attempts to design ventilators that are predominently used in inhalational therapy also for the operating room. They haven't been terribly successful marketwise but I think that you can definitely say that anesthesia ventilators are separate from inhalational therapy ventilators.

They have to, of course, keep with the putting in of explosive gases, and, therefore, their design characteristics have to be nonexplosive; whereas, you wouldn't think of doing that for an inhalational therapy ventilator. Whereas, an inhalational therapy ventilator may be needed to ventilate a

patient for weeks, months and even years, surgeons haven't started yet to take as long as that for surgical procedures.

N, Anesthesia respirators; respirometers are gas meters. They are really the same thing that a gas company uses for measuring the amount of gas that you are giving to a patient. Again, you want them to be nonexplosive; whereas, in inhalational therapy, they can be explosive.

However, it is fair to say that there is more cross-over between anesthesia respirometers and inhalational therapy respirometers than any of the preceding items that I have names.

Trachael tubes, also known as endotrachael tubes, I alluded to were probably used in the majority of inhalational anesthetization in this country and there are about 20 million inhalational anesthetics given in this country per year and they are generally used generally with a cuff in the end which blows up in the trachea, having been passed through the voice box.

Now, trachael tubes are also used in inhalational therapy. For instance, were any person in this Court to drop down dead and there was a trachael tube available, I would endeavor to put it through their voice box into the trachea to prevent the patient aspirating their breakfast when they are being resuscitated.

However, if this wasn't available, I would hope we could resuscitate somebody without it. But, you do leave them lying

around, or not lying around, but you do leave them in certain specified spots of hospitals and emergency wards, because, of course, people do tend to have accidents in hospitals because of their health.

So that here again, there is crossover. I would have thought that the vast majority of trachael tubes were used in inhalational anesthesia but there is a significant market outside of operating room of trachael tubes.

P, Direct laryngoscipes are the addition to the list of 316-A, I guess it is, and these are instruments about so big; (He indicated.) that are used with a light on the end, to allow the anesthetist or anesthesiologist to open the mouth of the patient, pass it over the tongue and look at the voice box; and, then, when he sees the boice box under direct vision, holding up the jaw, he can pass the trachael tube through the voice box.

They are not to be confused with indirect laryngoscopes which are the mirror that you see used in conjunction with the head mirror on television. And they are very commonly used by otolaryngologists, but it is very important that the anesthesiologist doesn't see a mirror image of what he is looking at. He has to see it directly, and, therefore, direct laryngoscopes are used by anesthesiologists.

Again, you like to leave a few around the hospital because they help in the patient in passing of trachael tubes when the

patient needs resuscitation. But I would think that well in excess of 80 percent of the market, or even in excess of 90 percent of the market, for direct laryngoscopes would be used in conjunction with inhalational anesthesia.

I think I have completed the list for you.

Other than I thought, that we have gone over most of the vast majority of important inhalational anesthetic equipment.

Q What percentage of tracheal tubes are used in inhalational anesthetic?

MR. TOPKIS: Excuse me.

I didn't hear the question and I think if I did hear it, I object to it.

May I have it read back?

(The pending question was read by the Reporter.)

MR. TOPKIS: I suppose that means endotracheal tubes?

MR. THURMAN: Same thing, I think, he said.

THE WITNESS: Yes. I specifically said American National Standards has said the official term should be tracheal, rather than endotracheal, partly to save paper and partly because there is a varied usage throughout the world.

JUDGE BARNES: Do you have an objection?

MR. TOPKIS: Yes. I don't understand what the question means, what percentage of them are used.

JUDGE BARNES: Well, I think there was testimony that some of the tubes were left in other parts of the hospital.

THE WITNESS: That is right, yes.

MR. TOMKIS: Oh, Okay.

JUDGE IMBES: Can you give us a percentage?

THE WITNESS: I can't give you a direct percentage, but I would say a clear majority of tracheal tubes were used in inhalational anesthesia rather than inhalational therapy.

If you insisted on me taking a figure off the top of my head, I would say 10 to 15 percent, less than 85 percent.

MR. TOMKIS: Nobody is insisting, Doctor.

By Mr. Tuchman:

Q Doctor, what hospital personnel work with inhalation anesthesia equipment?

A Anesthesiologists who have had sufficient training in anesthesiology, post their M.D. and post their -- practically, all intents and purposes, post their internship. And most of those are certified by the American Board of Anesthesiology which is a speciality board.

Nurse Anesthetists who undergo a period of training after they have completed their Registered Nurse training; they take a certificate which leads to the CRN, a diploma. And there are about equal number of Anesthesiologists and nurse anesthetists in this country.

I think we are talking about close to 20,000 of each, maybe between 15 and 20,000 of each. And the preparation of equipment is done by anesthesia techniques, that is, equipment

that is used by Anesthesiologists, and by Nurse Anesthetists.

Now, there is another group of people that is responsible for estimated three to five million anesthetics and that is the dentists.

And Dentists do receive training in inhalational anesthesia post their D.M.D. degree. Some of them get very skilled in it and there is cross fertilization between the professional societies now and in general, cooperation is fairly good.

Dental Anesthetists limit themselves to giving anesthesia for dental procedures, with very rare exceptions. For instance, the Childrens Hospital at Harvard has got a dentist on the anesthetic staff, but that is very uncommon.

Q What type personnel work with inhalation therapy equipment?

A Well, the primary maintainers, and if you like user of inhalation therapy equipment, are inhalational therapists, also known as respiratory therapists, and these are of two grades.

There are people who have got, or are working for their ARIT, which is their Register in Inhalational Therapy. These are people that have got college degrees for the most part, who have done two or more years of specialized training in respiratory therapy in a recognized school which is licensed by a body which is formed by the American Medical Association or American Hospital Association of the Inhalational Therapists

Society.

These Registered Therapists are under direct medical supervision and are required to be. The medical supervision that they are under varies from hospital to hospital. In our hospital, they are under the No. 2 person in my department who, of course, is an Anesthesiologist.

In a lot of hospitals, they are under a suitably trained chest physician. They are very, very occasionally under somebody with training in other areas such as pediatrics.

Under the respiratory therapist, that is, if you would like the third level in the hierarchy, are inhalational therapy technicians and they are people who do not have college degrees, who are examined on the practical aspects of the interconnections of inhalational therapy.

Inhalational therapists have minimal access to anesthesia equipment in most anesthesia departments, although, as I said, on occasion, they may be within the Department.

You try to keep the functions separate of the inhalational therapists and the anesthetists, although maybe, too much separation is a mixed blessing, because after all, the patient has to be handed from one group to another at some time in their hospital course.

If they are very sick, the transfer is important and I think it is wrong not to have each group talk to the other. But, that difference might be, to use the aircraft analogy

again, between pilots and ground controllers, or that; although Inhalational Therapists don't control the Anesthetists in any way, shape or form.

Q Doctor, I believe that you either testified or it is in your CV, CX-323, that you are Chairman of the Z-79 Committee, is that correct?

A That is correct.

Q And what is the Z-79 Committee?

MR. TOPKIS: I thought we went through this yesterday with Mr. Schreiber who, I believe, is also a member of the Z--79 committee.

JUDGE BARNES: Well, we have the Chairman here, so I will see what he has to say.

MR. TOPKIS: I defer to the Chairman. We will listen eagerly to his sayings.

THE WITNESS: It is a committee of the American National Standards Institute, which consists, of the leading manufacturers of anesthetic equipment and the representatives of the leading professional societies in this country.

As I said earlier, the Secretariat and, therefore, the nomination of the Chairman, is at present under the American Society of Anesthesiologists because the American Society of Anesthesiologists represents essentially all Anesthesiologists in this country.

So, therefore, it is a joint committee of manufacturers

and the representatives of the Federal Government like the Veterans Administration, the Armed Forces and the professional societies.

It is a committee that is concerned with standards both of design and of performance in anesthesia equipment. It has some overlap into the area of ventilators, which are used in respiratory therapy.

Certain members of the committee have felt that the respiratory therapy, inhalational therapy ventilators, should be hived off from Z-79 as being a minor part of the overall business of Z-79.

However, when put to the vote at the last meeting, a little bit to my surprise as Chairman, there was a unanimous vote not to hive it off. The American Thoraxic Society, which is the premiere provisional society representing chest physicians in this country, felt that if you like supremacy or the knowledge of the activities of Z-79 were such that it would be unwise to hive off from Z-79 since most people knew what it was up to now and the fragmentation was in some ways a bad thing.

But, three out of the four working committees are almost exclusively concerned with anesthetic equipment. There is the one working group which concerns itself with anesthesia -- sorry, with ventilators for inhalational therapy.

By Mr. Thurman:

Q Doctor, does the Z-79 committee promulgate standards for dental anesthesia equipment?

A Insofar as the tracheal tubes used are the same and insofar as the inhalational anesthesia machines used are the same, the answer to that is yes.

Q Doctor, what companies manufacture and market inhalation anesthetic equipment and accessories in the United States?

A Well, I would estimate from the hospitals that I have visited -- and I would stress that I am not party to the detailed sales figures -- but I would stress in the hospitals I visited, over 90 percent of the inhalational anesthetic equipment must be marketed by Airco, which includes Ohio Medical, Air Products and Chemicals and the British Oxygen Company consortium which includes, I think, Fraser Sweatman and Harris Lake.

Now, I would have thought that these companies had over 90 percent of the inhalational anesthetic equipment market.

MR. TOPKIS: Excuse me.

Your Honor, based on the witness' own modesty, I move to strike his answer. I think we have better information than the witness can give us on the basis of his occasional visits or perhaps frequent visits to hospitals around the country.

JUDGE BARNES: Well, I will accept his answer based

on his background that he stated visiting hospitals and associated equipment.

MR. TOPKIS: Your Honor, can I press the point a minute?

JUDGE BARNES: Yes.

MR. TOPKIS: You know, if a statement by this witness turns up in the brief at the Supreme Court, Airco and BOC, and of 90 percent, and it is not remembered what the qualification was that the witness so accurately and reasonably gave; and there slides into the discard, the very real, hard evidence we have of the truth here, and it seems to me that when we admit both evidence of total reliability, and evidence, however earnest and sincere its source, of lesser reliability, we just create confusion.

And I would urge, Your Honor, in that spirit to reconsider.

MR. THURMAN: Well, Your Honor, do you want me to reply?

JUDGE BARNES: Yes, if you have something to say, you can say it.

MR. THURMAN: Certainly reliable hearsay is admissible in our proceedings. And even so, this witness is an expert. He is thoroughly familiar with the industry. He teaches this type of work, using these machines; he is on the A-79 committee with all the people in the industry and this is

practically as reliable evidence as you could possible get.

MR. TOPKIS: No, that is just the point, it is not.

JUDGE BARNES: That remains to be seen. We will have other evidence in the record and it will be my duty to weigh it all and I am going to weigh the witness' testimony on this point and consider it with the rest of the evidence that comes in the record.

What is the trade name of the company, Doctor, that Air Products and Chemicals trade under?

THE WITNESS: They took over Forreger, is that not correct?

JUDGE BARNES: Forreger.

MR. TOPKIS: Just so the record may be very clear, at this point, Your Honor, may I state for the record that a Representative of Airco is in this Courtroom? A Representative of Ohio, that is, a Representative of Harris Lake is here, a Representative of BOC is here and that a witness from Air Products is scheduled to testify this afternoon.

So that, quite deliberately, the Commission is seeking the poorer, rather than the better evidence.

MR. THURMAN: For what purpose is this statement? This is this witness' testimony. They don't care who is in the room, going to testify; I don't.

MR. TOPKIS: If they want the facts, they can have them. If they want a distinguished expert's admittedly

unreliable opinion, they can have that too. —

MR. THURMAN: We want some third parties other than Harris Lake's and Sweatman and BOC officials.

JUDGE BARNES: Well, you are having Air Products and Chemicals this afternoon, is that correct?

MR. THURMAN: Yes.

By Mr. Thurman:

Q Doctor, in your answers, these companies, did you include the accessories? Are they the marketers of accessories, also, and equipment?

A Yes, they are the marketers of accessories. I based my answer on the list given in, I think, Document 316-A that I went through earlier.

You obviously get to the question of what is the minimum with which you can give an anesthetic. And I suppose the answer to that is an anesthesia machine, if it has got everything on it.

And really, I, you know, it is asking a professional witness a very difficult question to know the relative price of various adapters and fittings. One doesn't concern oneself with that. One concerns oneself with the main items, which are anesthesia machines and anesthesia ventilators and the answer that I gave of 90 percent, I think, is based upon the main items that are used in inhalational anesthesia -- and I stress inhalational anesthesia.

I don't mean inhalational therapy, I mean inhalational anesthesia.

JUDGE BARNES: Doctor, let me ask you a question.

When you buy a machine, what do you get with it? For example, when you purchase an automobile, you get s spare tire, horns and headlights and so forth. What do you get with a machine, is that a complete setup or what?

THE WITNESS: Well, it is really very similar to buying an automobile. You can buy it not in running order, or you can buy it in running order, with the various accessories. And you would expect to be able to buy a complete machine from either Ohio or Forreger, or Harris Lake.

And if you look around the Harvard departments, for that matter, around the Univeristy departments of big hospitals of this country, you will see overwhelmingly, Ohio and Forreger anesthesia machines, with some of the British Oxygen ones, especially scattered on either seaboard where anesthesiologists with British background tend to have landed, like myself.

Now, you can choose accessories from another company and certain people do, because on occasions, they are better or they are needed for a specialized purpose such as when all the patients are sitting up for a given neurosurgeon who specializes in a given operation.

But the general thing to do is to get the accessories that go along with the machine. The more specialized the

hospital, maybe the less they follow this.

By Mr. Thurman:

Q Doctor, what factors are taken into account when you are considering purchasing inhalation anesthetic equipment from companies?

A A history of reliability, an ability to get good service; a knowledge, a prior knowledge of one's colleagues, of the design characteristics, either of a given machine or of a series produced by a company.

And those, I think, are the chief factors leading to the safety of the machine. There have not been radical changes in the design of anesthesia machines in the last 40 or so years. You might hear testimony that there have been, the same way as General Motors would testify to you that your Cadallac is greatly different from Henry Ford's T Model.

But the analogy with the motor industry is reasonably complete. There haven't been very great advances of anesthesia machine design. Moreover, the specifications of the various National standards institutes such as the Z-79 committee or the British Standards Institute Committee or the French or African, or so forth, are fairly strict now.

And, therefore, machines have to be designed to fairly rigid criteria, the same way as automobiles are coming to be done the same.

Q Doctor, would you advise a small company not engaged in

the manufacture and distribution of inhalation anesthesia or anesthetic equipments and accessories to enter that market?

MR. TOPKIS: I object, Your Honor, on two grounds: one, that the witness did not mention in his quite distinguished list of qualifications any commercial experience; and 2, on the ground that as I see it, the statement as to the area of his expected testimony does not include any such subject matter.

JUDGE BARNES: I think I am going to sustain the objection, Mr. Thurman.

MR. THURMAN: I will withdraw that question and lay a foundation.

By Mr. Thurman:

Q Have you ever consulted with companies? Have you ever been hired as a consultant by companies to enter, consider entering the inhalation anesthetic equipment market?

A Attempts have been made, but I have always refused a monetary or other reward for it. I thought that it was incompatible with my full-time position at Harvard and even more, since I became on the Standards Committee on the Standardization Committee where one has to make rulings that really do affect the profits and losses of companies.

But I have given, unpaid, voluntary testimony, not in writing, but orally on the telephone.

Q And what was that advice you gave?

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MR. TOPKIS: Objection.

JUDGE BARNES: Now, that is a question that is too broad, Mr. Thurman.

By Mr. Thurman:

Q Well, what advice did you give the companies seeking ---

JUDGE BARNES: What questions were asked and let's have a more specific question than what advice was given.

MR. THURMAN: Well, Your Honor, what was testified, he gave advice whether they should enter this market or not.

JUDGE BARNES: Well, ask him that question.

MR. THURMAN: That is what he just answered, he was giving this advice unpaid.

JUDGE BARNES: All right, what advice did he give companies who were seeking or a company that was seeking?

MR. THURMAN: Excuse me, Your Honor, that is what I ---

MR. TOPKIS: Excuse me, Your Honor, I request even more specific.

MR. THURMAN: I don't want any ---

JUDGE BARNES: Mr. Topkis has an objection. Let's hear the objection.

MR. TOPKIS: I would request what company came to you, when, represented by whom and in that conversation, who said what. That is the traditional way of asking a question.

JUDGE BARNES: I think that would be a better way.

MR. THURMAN: I do not need Mr. Topkis's advice on how to answer a question.

MR. TOPKIS: I am skeptical about that.

MR. THURMAN: Or so, I will help him when he gets on direct, if that is the way he wants to run this law suit, or try to run this law suit.

JUDGE BARNES: Let's rephrase your question now and try to be very specific.

By Mr. Thurman:

Q What company sought your advice, Doctor?

A I have been asked by Harvard Apparatus Company. I better explain the background of Harvard Apparatus Company since it is not quite what it seems.

It is a nonprofit company that was set up by a Harvard Professor of Physiology to produce equipment that was of use to Harvard Medical School and to teachers of physiology throughout the country.

It has stayed a nonprofit organization and, of course, its ties with Harvard have been close. We pay for any equipment that we get from them. However, it is a nonprofit organization. And they are obviously of help in designing equipment that is useful to a person doing research, especially somebody doing research on the Harvard Medical School campus.

So, we have a feeling that we have an obligation to advise them if they ask. And I advised them ---

MR. TOPKIS: Excuse me, forgive me, Doctor.

There is no question pending about the advice that the Doctor gave.

JUDGE BARNES: Now, let's have a further question, Mr. Thurman.

By Mr. Thurman:

Q When was this advice sought?

A Approximately five years ago, six years ago. I cannot give you the absolute date and I don't have a diary, even in Boston, that would have it.

Q What was the advice that was given?

MR. TOPKIS: Objection, Your Honor.

JUDGE BARNES: What was the advice given this, Mr. Thurman?

By Mr. Thurman:

Q What was the advice given?

JUDGE BARNES: What was the question?

By Mr. Thurman: What was the question?

A The question was whether they should enter the field of anesthetic, inhalational anesthetic equipment and ventilators, and the field of ventilator design for use both in anesthesia and in inhalational therapy.

Q And what was your advice?

MR. TOPKIS: I object, Your Honor, now on the twin grounds that; A, the Doctor still is being asked to testify

outside a subject on which he was supposed to testify; and B, that he is being asked about the advice that he rendered to a company which he has described as being a nonprofit company.

And the question of whether a nonprofit company should enter a business is very different from the question of whether a company subscribing to the profit motive is going to enter that business.

And so, on grounds of relevance, I would object to this question.

JUDGE BARNES: All right, I will overrule the objection and let you answer, Doctor.

THE WITNESS: The advice that I gave to the company was that they should not enter the field. The reasons being that the field carried considerable risks of litigation as a result of product liability, that the field was not making large conceptual advances and that the companies, the large companies that we have named, seemed to have large resources behind them, and I didn't see any large expansion in the market and I didn't see any real opportunity for companies outside these big companies.

My advice was accepted, or appears to have been accepted.

By Mr. Thurman:

Q Was any other companies, did any other company seek your advice along this line?

A Yes.

Q And who was that?

A Well, Hulit-Packard asked for advice. Now, I ought to declare that my wife has some Hulit-Packard shares and I think $200, or something like that.

The advice that I gave them -- and they are a very different company to Harvard Apparatus, as I am sure you are aware -- the advice to them was no, and there were permutations on the same answer, that the risk of litigation was large, that there was an inherent conservatism of anesthetists and anesthesiologists that they got used to the design of a company, that the designs were relatively standardized,that there wasn't much opportunity for innovation along the lines that Hulit-Packard, of course, had made famous in other fields and, therefore, I didn't think that it would be suitable to them.

Like a lot of advice to middle management, it sort of reverberated up and down the vast reaches of Hulit-Packard and I got telephone calls from all sorts of people and I got pretty fed up with that.

I was trying to do a job and not give free advice. Since then, I have been a bit crisper and shorter with anybody who has tried to get advice.

MR. TOPKIS: How are you going to be on testimony, Doctor?

(Laughter.)

By Mr. Thurman:

Q What time period are we talking about on this latter?

A I think it would be 1969 or 1970.

Q On Hulit-Packard.

Doctor, is inhalation equipment used outside the hospital?

A Yes.

Q Now, is inhalation anesthetic equipment used outside the hospital?

A A little bit of it is used in dentists' offices. Physicians are, I think, maybe too wise to use it outside hospitals but because of the problems of dental practice, some dentists have inhalational anesthetic machines in their offices.

I think the number is declining but it still must be a substantial number.

Q It is only used in dental offices and hospitals, is that correct?

A That is correct. And veterinary schools.

Q Is inhalation therapy equipment used in the home?

A Inhalational therapy equipment is used in the home.

Q Now, Doctor, can one use inhalation therapy equipment to self-administer anesthesia?

A If you want to commit suicide, yes.

Q Can one use inhalation therapy equipment for self-therapeutic ---

JUDGE BARNES: Let's strike the word self, I think that should be stricken from the question. Self-administration implies self-administration, doesn't it?

By Mr. Thurman:

Q Well, I want to know, can one use the inhalation therapy equipment on himself?

A The answer is yes.

Q Is that quite common?

MR. TOPKIS: Excuse me, but I think the Doctor is qualified in the field and anesthesiology and not in the field of inhalation therapy; and that tomorrow, we have a witness almost as qualified as the current witness who is qualifications lie in the field of inhalation therapy and I think we might defer the question to that time.

THE WITNESS: I was the head of Inhalation Therapy during the summer four or five years in Massachusetts General Hospital.

MR. TOPKIS: If you had told me that, Doctor, I would not have objected on that ground. But I would still have objected on the subject matter on which Dr. Hedley-Whyte is scheduled to defend does not include inhalation but rather, Dr. Karby who is scheduled to testify tomorrow on that subject.

MR. THURMAN: Mr. Topkis amazes me, that we can only elicit information or testimony from one witness or one document throughout this trial. This amazes me. I never heard of

such a thing.

JUDGE BARNES: Well, he had another objection that you did not notify him that the witness ---

MR. THURMAN: But if he had listened to the witness during the witness' testimony thoroughly, he would have noted that inhalation therapy people under him at both that hospital, at Beth Israel Hospital and at his training, he was in charge of it at Massachusetts General. So, this man is qualified.

JUDGE BARNES: You may proceed with your question.

MR. TOPKIS: I really don't understand why I am given a statement of expected testimony and, then, it is not regarded as a road map but rather, as a point of departure.

JUDGE BARNES: Well, I don't believe that I set any fast guidelines on the paragraph summary. However, it would have been helpful, Mr. Thurman, had you given Mr. Topkis a better summary of the witness' expected testimony.

MR. THURMAN: I apologize, Your Honor. I thought this was probably sufficient.

MR. TOPKIS: Well, this says that one will testify on the one subject and the other on the other.

MR. THURMAN: If we are going to argue over this point, I will withdraw that particular question.

JUDGE BARNES: Very well. Proceed.

By Mr. Thurman:

Q Doctor, is there a difference in price, between an

inhalation anesthetic machine and an inhalation therapy machine?

A It depends which machine you choose out of each group. I can choose one that costs $3000 in one group and another group that costs $3000 in another group. Maybe I am being difficult.

JUDGE BARNES: He will frame another question for you, Doctor.

By Mr. Thurman:

Q Maybe I ought to ask you in general, this equipment accessories, can one machine differ in price from the other machine since they are different machines?

A In general, anesthetic equipment is more expensive than, shall we say, a piece of tubing which serves roughly the same function in connecting the patient to the machine?

It generally is more expensive in anesthesia because, as I think I said, in anesthesia, there is a requirement for semiconductivity, that is, the rubber or plastic must be of a given resistance to electricity, because of the particular demands of the operating room, so that in general, similar pieces of equipment, insofar as they are similar, and there aren't all that many things that are similar, more expensive when used in an operating room, and it would only be an emergency when one would transfer medical equipment outside of the operating room.

If you transferred inhalational therapy equipment into the operating room, you either must not use explosive anesthetics and you must make certain that your patient wouldn't get

electrocuted from any of the monitors and you must accept the risk of anesthetic explosion.

And, in general, we try not to kill the operating room team since we think they are even more valuable than patients.

JUDGE BARNES: Have there been explosions, Doctor?

THE WITNESS: Indeed, there have.

By Mr. Thurman:

Q Doctor, what effect will a combination of ---

A There was a very bad one here at George Washington, here two or three years ago, I think, George Washington.

JUDGE BARNES: University?

THE WITNESS: University Hospital,had a very bad explosion.

By Mr. Thurman:

Q Doctor, what effect will a combination of Ohio Medical and Fraser Sweatman, Harris Lake or Airco and BOC have on purchases of inhalation anesthetic equipment and accessories?

MR. TOPKIS: I object, Your Honor.

JUDGE BARNES: I think this might be a question that is reserved for me to determine and I am not sure it is in the Doctor's area of expertise, even.

MR. THURMAN: I would like, before you rule, Your Honor, maybe I would like you to explain that this witness is a purchaser of this equipment, and certainly, it is going to have some effect, possibly, maybe not, but I would like to have

his answer whether he thinks it will be any effect on him as a purchaser of that equipment.

JUDGE BARNES: But limit your question to the Doctor as a purchaser.

MR. THURMAN: And not as an expert?

By Mr. Thurman:

Q In your opinion, Doctor ---

MR. TOPKIS: He is being asked to be a prophet.

MR. THURMAN: What ---

MR. TOPKIS: And he is not qualified as a prophet.

JUDGE BARNES: Let's hear his question again.

What is your question, Mr. Thurman?

By Mr. Thurman:

Q In your opinion, Doctor, as a purchaser of inhalation anesthetic equipment, what effect will the combination of Ohio Medical, Fraser Sweatman and Harris Lake, or, in other words, BOC and Airco, have, in your opinion?

MR. TOPKIS: I object to the question.

JUDGE BARNES: I think this is an improper question, Mr. Thurman. It is an open question, what effect it would have.

MR. THURMAN: I don't want to argue with Your Honor, but I would like to state that I don't believe the opinion of this witness as to what effect this will have on him is an ultimate question.

I agree it is an ultimate question overall, of whether

there is any anticompetitive effects with this combination as an issue for Your Honor to decide. But I believe it would be helpful to know if this witness believes or has an opinion as to what effect it will have on him as a purchaser.

JUDGE BARNES: I think his testimony would have to be limited to what effect it has had on him to date and not speculate on what it may have in the future.

I think that is a matter for the Court to determine; the Commission ultimately and, then, the Courts.

MR. THURMAN: May I have a minute, Your Honor?

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MR. THURMAN: Your Honor, I would like to state respectfully that you have imposed an impossible burden on Complaint Counsel in the fact that we have a whole separate agreement, there has been no combination, and so forth. So, I would think that this witness could state about whether he has thought about this or not, and what state of mind, what effect this would have on him as a purchaser.

JUDGE BARNES: I am going to sustain the objection Mr. Thurman.

MR. THURMAN: All right.

By Mr. Thurman:

Q Doctor, did reducing your source of supply from three companies to two have an effect on your purchasing power?

JUDGE BARNES: I will sustain an objection to that question. Do you have any further questions, Mr. Thurman?

MR. THURMAN: No further questions.

JUDGE BARNES: All right.

We will take a 10-minute recess.

(Brief recess.)

JUDGE BARNES: Is that the end of the direct examination, Mr. Thurman?

MR. THURMAN: Yes, Your Honor.

MR. KAPLAN: Your Honor, at this time I would like to ask for any Jencks material there may be on this witness.

MR. THURMAN: I have had no contact with this

ms-2

witness before, but here is the just casual notes of Mr. Youngwood and the economist, Weinstein.

JUDGE BARNES: All right, these are not Jencks statements, so I will return them to you.

MR. KAPLAN: Thank you, Your Honor.

CROSS-EXAMINATION

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By Mr. Kaplan:

Q Dr. Hedley-Whyte, I think at the outset of your testimony I noticed that you were consulting some notes or documents to refresh your recollection, is that correct?

A That is correct.

MR. KAPLAN: Your Honor, may I ask for the production of any documents that the witness used while on the stand to refresh his recollection?

JUDGE BARNES: Well, I think one document he used was the specifications to the Commission's subpoena which I think you have seen.

MR. KAPLAN: Yes, sir.

JUDGE BARNES: And I don't know what the other document is. You may have seen it.

By Mr. Kaplan:

Q Dr. Hedley-Whyte, do you have some other documents that you have consulted?

A No, there is just the subpoena and my travel schedule.

JUDGE BARNES: I don't think he referred to the other documents.

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THE WITNESS: I didn't refer to them.

MR. THURMAN: I don't believe the Doctor referred to this document either.

JUDGE BARNES: Did you use this document in your testimony, Doctor, in any way?

THE WITNESS: No. I did just briefly, you know, make certain that these three were at the top. I would have known that they were at the top, but ---

JUDGE BARNES: All right, I will turn the document over to you.

By Mr. Kaplan:

Q Dr. Hedley-Whyte, did you consult any other wirtten materials in preparation for your testimony today other than the document that you have just handed us?

A No.

Q None whatsoever?

A No.

MR. KAPLAN: Your Honor, may we have this document marked for identification, so that the record may be clear?

THE WITNESS: That is my handwriting on it.

JUDGE BARNES: Where did you get the document in the first place, Doctor?

THE WITNESS: It was handed to me I think by -- at the meeting I had with Mr. Weinstein in Boston, in my office.

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By Mr. Kaplan:

Q Who is Mr. Weinstein, Doctor?

JUDGE BARNES: He is Complaint Counsel.

MR. KAPLAN: So the record is clear, an FTC staff economist?

JUDGE BARNES: Yes. You may mark it.

MR. KAPLAN: All right, Your Honor, just for convenience we will mark this BOC Respondent's Exhibit 200 for identification, if that is agreeable.

JUDGE BARNES: All right.

(The document referred to was marked BOC Respondent's Exhibit 200 for identification.)

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MR. THURMAN: Your Honor, first, I don't believe this witness used it. I don't mind him having the document. I don't know what the relevancy is to the document. I don't believe the gentleman used the document.

MR. KAPLAN: Your Honor, the witness stated he looked at the document to make sure the top three companies he named during his testimony were the top three on this list.

MR. THURMAN: All right, then, Mr. Caplan is restricted to the top three companies.

JUDGE BARNES: I don't think so.

By Mr. Kaplan:

Q Doctor, I think during your direct examination you defined inhalation anesthetic equipment and accessories as equipment

necessary and useful for giving inhalational anesthesia. Is that a fair statement of your testimony?

A Yes. I included in patients and animals, I think as a qualification.

Q Fine. Now, how would you define the term "anesthesia"?

A The state of insensibility to pain, associated with unconsciousness.

Q And there are ways of achieving anesthesia other than by inhalation of drugs and other anesthesias?

A You can inject them intravenously.

Q And that procedure is commonly used in the medical profession today?

A Yes. It is commonly used, yes.

Q And at least for some medical procedures, injections of drugs are alternatives to inhalation of anesthetics, are they not?

A What do you mean by various kinds of drugs?

Q Well, what is it that you inject in a patient to achieve a state of anesthesia by injection?

A Most of the general anesthetics in this country are started with an intravenous injection of some form of short-acting barbiturate. However, the repetitive does of, doses of intravenous barbiturates, strain the circulation, and particularly the heart, so that trained anesthetists tend to medically revert, after starting the anesthetic with an

intravenous injection of barbiturate, to the use of inhalational agents rather than giving continual repetitive doses of drugs such as barbiturates.

Q What is the purpose of giving a patient anesthesia, achieving a state of anesthesia in a patient?

A Almost invariable it is to allow some form of surgical procedure on investigation that is painful to be accomplished.

Q So that it is to render thepatient insensitive to pain, correct?

A Correct, and make certain that he stays still.

Q That is right. And there are other means of achieving that apart from achieveing a state of unconsciousness, are there not?

A It depends what operation you are having.

Q That is right. For example, there is something called spinal anesthetic Is that right?

A There is indeed. The use of spinal anesthesia in this country and even more abroad has declined as the problems of allergic reactions in the spinal column to the drugs have become widely publicized.

Q The use of spinal anesthetic is still a commonly accepted medical practice in the United States, is it not?

A It is.

Q You certainly would not say that an anesthesiologist who has used a spinal anesthetic has failed to exercise the

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requisite care and skill as an anesthesiologist?

A It depends what he has used it for.

Q But you would not make a flat across-the-board statement that to fail to use it would fail to meet standards?

A No.

Q In fact, I assume you have used it yourself on occasions?

A Indeed, I have.

Q And for some kinds of occasions a spinal is an alternative?

A It is certainly an alternative.

Q An alternative to inhalation anesthesia?

A It is.

Q Now, acupuncture is beginning to have some exposure in this country, is it not, as a means to render a patient insensitive to pain and immobile for surgery?

A It is having some acceptance. We have done at the Beth Israel Hospital three general surgical cases under acupuncture analgesia.

The operating team and the patient were satisfied with the results. The time taken to induce acupuncture analgesia is considerable. It appears that not all patients, even in China, are susceptible to successful use of acupuncture, and a recent report which was agreed to by the Chinese as being accurate, showed that the percentage of surgical operations in China, in Mainland China, being done under acupuncture anesthesia was probably below one percent, certainly in the

ms-8

major cities.

So, that the use of acupuncture analgesia even in Mainland China has declined dramatically, and they are trying to train an increased number of trained anesthetists and anesthesiologists.

Now, I would agree that the number of acupuncture analgesic uses in this country for surgical procedures was going up because it had to, it was zero a few years ago.

MR. KAPLAN: I move to strike the testimony about the frequency of acupuncture in China, on the ground that it is a hearsay report of an article that is itself the best evidence of whatever the author of the article wrote. It is impossible for us to cross-examine as to the contents of the article.

JUDGE BARNES: Well, I think you were going a little far afield when you started this, so I am going to permit the record to stand as it is.

By Mr. Kaplan:

Q What were the surgical procedures that were done at Harvard under acupuncture?

JUDGE BARNES: Do we have to? How far are we going along this line now?

MR. KAPLAN: Well, I don't think we are going to go too far, Your Honor. But I think certainly another means of availability of accomplishing the same purpose of that inhalation anesthesia is relevant here to the definition of the market.

ms-9

the market. It seems to me that Complaint Counsel have carved out a little bit of anesthesia which involves gases and they want to run with that ball.

JUDGE BARNES: Well, he has testified about acupuncture, and he has testified about spinal; he has testified about drugs now.

MR. KAPLAN: Well, I will only go a short way farther, if Your Honor will permit.

JUDGE BARNES: All right.

MR. THURMAN: We will object, Your Honor; outside the scope of direct, no relevance to it. Talking about equipment, not talking about acupuncture.

Our market is equipment, and if he wants to talk equipment ---

JUDGE BARNES: Mr. Kaplan is exploring the outer limits of the market.

MR. THURMAN: He certainly is; way outer limits, I might add.

JUDGE BARNES: Proper cross-examination.

By Mr. Kaplan.

Q Doctor, what were the surgical procedures done at Harvard with acupuncture?

A There was a an appendectomy and two hernia repairs.

Q Are those operations that are customarily done in the United States under inhalation anesthetics?

ms-10

A They are.

Q And the equipment that one uses in acupuncture consists of needles; is that correct?

A Everybody, even in China has inhalational anesthetic equipment available because of the known failure rate of acupuncture analgesia.

Q That was not quite the question.

JUDGE BARNES: Do they use needles?

THE WITNESS: They do use needles as well.

By Mr. Kaplan.

Q And what equipment do you use in administering spinal anesthesia?

A Needles. You also have available inhalational anesthetic equipment, either to give the patient inhalational anesthetic should the spinal anesthetic not take, or on rare occasions to resuscitate the patient quickly.

Q Now, during your testimony you referred to Commission Exhibit 316, which are the specifications.

A Yes.

Q Did you prepare that list by any chance? Or any part of it?

A No, I didn't prepare that list. If I remember correctly, it was -- well, certainly sent to me in Boston.

Q It was sent to you in Boston?

A Yes.

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Q When were you first contacted by representatives of the Federal Trade Commission?

A Approximately ---

MR. THURMAN: Your Honor, what is the relevancy of this?

JUDGE BARNES: Well, I think it is proper cross-examination, and it is not causing any harm, is it?

MR. THURMAN: It is no harm, no, but we can go on all day on material that is not relevant in this procedure.

THE WITNESS: I don't have my diary with me. Maybe I should have brought it. It was a matter of weeks ago, at the most. I think we can find out.

By Mr. Kaplan:

Q How were you first contacted, by telephone?

A By telephone, yes.

Q And who telephoned you?

A I think Mr. Weinrot, but I ---

Q Mr. ---

A I think Mr. Weinrot.

Q Weinstein?

A Weinstein.

Q And what is it Mr. Weinstein said to you?

A He said, "Are you Dr. Hedley-Whyte?"

JUDGE BARNES: And you said, "Yes."

THE WITNESS: And I said yes.

(Laughter.)

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And he asked me the same sorts of questions that I have been asked on the stand this morning. The beginning part of my cross-examination.

He tried to establish that I knew something about the field, and he asked me if I was aware of the companies involved, and was I aware of British Oxygen takeover bid for Airco, to all of which I said yes.

By Mr. Kaplan:

Q Did he ask you what products you regarded as being in inhalation anesthesia?

A Well, certainly at sometime during our telephone calls or in our meeting we did check that this list was a reasonable list, and I think it was on Friday, last Friday on the telephone, that I pointed out that direct laryngoscope should be added to the list.

I was asked this, and I said, yes, they should. And I was asked my reasons why they should be added, and on my list we added it as item P.

Q So, Commission Exhibit 316, the list to which you referred, was presented to you and you were asked in substance where that was an accurate list of the products constituting inhalation anesthetic equipment and accessories; is that right?

A Correct.

Q Did you ever have any discussion with Dr. Weinstein or other representatives of the Commission about whether inhalation

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anesthetic equipment was a discreet market?

A Yes.

Q And what was the substance of that discussion, that is what was the substance of what you were asked on that subject?

A Well, there was a discussion as to the organization of departments of anesthesia, and the interrelationships, if any, between inhalational anesthesia and inhalational therapy, and the testimony or the answers that I gave were I think identical to the answers I gave under oath this morning. These were my answers, not his suggestions.

Q Understood. How many meetings and conversations did you have with representatives of the Commission?

MR. THURMAN: I object to this line questioning. It is immaterial and irrelevant, and if he wants to stipulate that we discussed what he testified this morning, certainly I will stipulate that.

JUDGE BARNES: I think this is proper cross-examination of your expert to see how many times you talked to him, what was said to him, and if you improperly coached him in his testimony.

THE WITNESS: We met once in my office in Boston, and we met for a total of about an hour-and-a-half, if I remember correctly, which I think I do. And we met for 15 minutes to half an hour this morning. And we have had two telephone conversations, and I believe you have telephoned me,

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is that correct?

By Mr. Kaplan:

Q Yes, I certainly have, Doctor, although you are testifying. How long did I speak to you, by the way?

A About five, three minutes, I should think.

Q And during that telephone conversation you told me you had no intention of spending as much time as an hour with me on the telephone?

A That is correct, yes.

Q And during that conversation you refused to telephone us in the event you were subpoenaed, did you not?

A That is correct.

Q Now, Doctor, nitrous oxide is used for dental analgesia, is it not?

A Nitrous oxide is used for dental analgesia. And one gets in a semantic problem with definitions of anesthesia and analgesia. It is possible to take a critical level of analgesia, such as unconsciousness is not produced, but that the perception of pain is altered.

On extremely rare occasions an anesthetist succeeds in getting the dose of nitrous oxide just right so that nitrous oxide analgesia, but not anesthesia, results.

I personally have never been able to guarantee that I could do it. And my colleagues don't seem to be able to guarantee that they can do it. Sometimes as a sort of fluke

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it happens.

You may meet certain dentists in the world who claim that they can produce analgesia without anesthesia. There have been long trials on this matter, actually. There was one in Britain last year.

MR. THURMAN: Your Honor, I move prior to this last answer, I move that the question and answers be stricken as far as this witness not talking to Respondent's Counsel.

As Your Honor well knows, this witness is under no obligation to talk voluntarily to counsel for the other side, and Mr. Caplan has at his disposal methods of talking to this witness prior to this witness taking the stand.

So, therefore, I think it is improper, the questions that were asked.

JUDGE BARNES: I understand what Mr. Kaplan has available to him, and I will leave the record stand as it stands.

MR. KAPLAN: Your Honor, may I just have that answer back -- I didn't get quite all of it -- from the reporter?

JUDGE BARNES: Read the witness' last answer.

(The record was read by the reporter.)

JUDGE BARNES: I think the reporter is doing a magnificent job.

By Mr. Kaplan:

Q Doctor, are you familiar with any of the equipment used

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by dentists in administering nitrous oxide?

A Yes, and I have given dental anesthesia myself on considerable occasions.

Q Are you familiar with the equipment distributed by the National Cylinder Gas Division of Chemetron for that purpose?

A I think so.

Would you tell me which companies they have taken over, and the names under which the machines are marketed?

Are you referring to the Nygraph, McKesson machine?

Q No, I was not. But we can take that one. Are you familiar with the McKesson product?

A Yes.

Q And would you classify that in your own terms, as you classified this morning, as dental analgesia or dental anesthesia equipment?

A I would classify it as dental anesthesia equipment.

Q Are you familiar with the Quantiflex RA as distributed by Fraser Sweatman?

A No.

Q Are you familiar with the Porter Instruments nitrous oxide machine which is distributed by National Cylinder Gas?

A No.

Q Do you use the McKesson nitrous oxide equipment for surgical anesthesia?

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A No.

Q Now, as a general rule, in purchasing surgical anesthesia equipment, do you consider the prices of the McKesson nitrous oxide equipment in deciding what products to buy for surgical anesthesia?

A To my mind the price of the McKesson is wholly irrelevant, since I have told you that I don't use it for surgical anesthesia, inhalation anesthesia.

Q Now, veterinary anesthesia equipment of course typically winds up used by veterinarians?

A I would imagine, sir.

Q And there are dealers of medical products who specialize in veterinary products, correct?

A There must be.

Q Well, areyou aware of any?

A No. I stated that for the considerable amount of animal work that we do, we use human equipment, or pediatric equipment, since children are, you know ---

MR. TOPKIS: Small animals.

THE WITNESS: Small animals.

By Mr. Kaplan:

Q Am I correct in assuming the medical work you do is not per se veterinarian but experimental work?

A Almost exclusively, yes. There have been -- almost exclusively, yes.

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Q And I assume that the prices of veterinary anesthesia equipment are also irrelevant to your determination of what surgical anesthesia equipment to buy for use on humans; am I correct in that assumption?

A At the present and in the past, yes.

Q Now, in addition to the products that are listed on Commission Exhibit 316, the specifications, an anesthesiologist during the course of a surgical procedure will use other items of medical equipment, correct?

A Correct.

Q For example, you use various kinds of monitoring devices to give you some feedback on the patient's condition, correct?

A That is correct.

Q And among the purposes for which you do that is to monitor the level of anesthesia that the patient is under?

A Indirectly, yes. In the fact that if you kill a patient with an overdoes of anesthetic, you can see from the cardiac monitor that his heart is stopped. But you can't really say that the monitors are used as a direct measure of the level of anesthesia, no.

Q Are you familiar with an item called an anesthesia analyzer?

A There are various pieces of equipment used to determine the level of anesthetic both in the inspired gas and in the patient's blood. Some of themare satisfactory, others are not. I am not aware of all the proprietary names for what is

ms-19

a fairly small market.

Q When you say "fairly small market," Doctor, you are referring to your own use of those products, are you not? And the use of those products ---

A And my knowledge of other people's use of them, sure. It is my job to know what goes on in the field of anesthesiology throughout the world.

Q What products are used for monitoring the level of anesthesia, anesthetic in the blood?

A I would like to preface my remark by the statement that most centers do not monitor directly the level of anesthestic during an inhalational anesthesia. They are coming to monitor the levels of oxygen being delivered to a patient.

So, with that preamble, very few departments of anesthesia directly monitor that level. I would say that the most accurate way of monitoring the level is to draw blood from the patient and put, extract the anesthetic vapors from the blood and pass them through a gastronomigraph, which is the way that most university centers do that. Gastronomigraphs have no place in the operating room; they are outside the operating room.

Q And you monitor the oxygen concentrations delivered to the patients?

A In our hospital we do now, yes.

Q And what equipment do you use for doing that?

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A We use a polarograph.

Q Who are the manufacturers of the polarograph?

A The ones we use now, the ones we use are instrumentational labs.

But I think that Airco now markets a polarograph, do they not? You should have other testimony on that, but ---

Q Well, perhaps we will.

A We had a subcommittee in my department that looked into the reliability of the various polarographs, and they came up with the decision ---

MR. KAPLAN: Well, I think we are getting beyond the question, objection, Your Honor.

JUDGE BARNES: Let the witness finish his answer.

Go ahead.

THE WITNESS: We came up with a decision that the amount of oxyjen delivered to a patient was crucial, and that the best monitoring system cum alarm device was made by Instrumentational Limits, which is, of course, an offshoot of MIT and our decision might not be applicable to any other country.

By Mr. Kaplan:

Q Are there other polarographs on the market, do you know?

A Well, yes, I think that the Big Three have all gotten them, haven't they; it is a big market.

Q Well, what companies, Doctor?

ms-21

A Airco, Air Products and BOC, have they not?

Q Well, I am asking you, Doctor; you are the witness this morning. Are you aware of any others?

A I can get hold of the testimony of the committee that looked into it. There are other companies that are trying to break into the market.

Q Well, who, Doctor?

JUDGE BARNES: To your knowledge, now, Doctor, do you know?

THE WITNESS: Radiometer, who make polarographs, were talking about breaking into the market. Corning, the glass people, were trying to design polarographs for this.

By Mr. Kaplan:

Q Do you know anyone else who is presently manufacturing or marketing polargraph?

A In this country, or anywhere?

Q Yes, of course, in this country.

A For the measurement of oxygen tension, no.

Q For any other purpose associated with anesthesia?

A No.

Q Now, which of the BOC companies, to your knowledge, sells polarographs in the United States?

A I don't know.

Q Do you know what brandname the BOC polarograph you referred to is sold under?

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A No. Since I was told not to buy it, I didn't concern myself any further with it.

Q Now, who was it told you not to buy it, Doctor?

A The senior members of my department who were looking into the question of (a) whether we should monitor the inspired oxygen during inhalation anesthetics and, if so, which company we should buy the polarographs from.

Q Every heard of a polarograph made by a company called Biomarine?

MR. THURMAN: Objection, Your Honor. I think Mr. Kaplan has gone far enough. He has been outside the scope of direct for quite a while. He said he is not interested in these. Now he is asking the question, said he does not particularly care who asked it.

MR. KAPLAN: Excuse me, Your Honor. I think the witness testified this piece of equipment was regarded by his department as being critical during the anesthesia process. I think certainly the witness' knowledge of products on the market is relevant to the testimony he gave on direct.

JUDGE BARNES: I think so, too.

You may answer the question.

THE WITNESS: Yes, now that you bring the matter up, I remember seeing a flyer from Biomarine about this, and the testimony given to me by the subcommittee at my department was that the service and possibly the performance of Biomarine

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was not as good.

By Mr. Kaplan:

Q Now, what ---

A We are talking about a one recently introduced item of equipment used in anesthesia. I would doubt whether more than five percent of anesthetic departments use this monitoring.

I personally believe, and obviously members of my department believe, that this piece of equipment should be used more frequently.

The problems of the maintenance of this particular piece of equipment are still very considerable. And as I pointed out, we tried tp pick a local company that had a good record of manufacture.

Q Now, Doctor, apart from the polarograph, are there other items of monitoring equipment that are used by the anesthesiologists during anesthesia?

A Well, once in a blue moon we use an electroencephalogram.

Q Anything else?

A Well, you are now asking me to go further afield in the operating room. And it becomes a moot point, you know, where the anesthesiologists' responsibilities for the conduct of an operation end.

Q Well, I am really being much more specific than that, Doctor. I am asking what other kinds of monitoring equipment you use during anesthesia, or have you used?

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A We monitor the electrocardiogram of the patient. But, of course, the use of electrocardiograms as a proportion of the overall market of electrocardiograms is very small. The number of electrocardiograms monitored by anesthesiologists compared with the rest of the medical profession is a very small percentage.

We, during serious major operations, monitor the arterial blood pressure of the patient, and occasionally the central venous pressure which is the central filling pressure of the hart, and this is done by monitoring equipment which is frequently combined with the equipment that is used for measuring the heartbeat of the patient.

Again, the use by anesthesiologists of this equipment, which, of course, is general to any seriously sick patient, is only a small part of the market. It is rather like asking about the trousers that anesthetists wear in the operating room; it is only a small part of the overall trouser market in the United States.

Q For what medical purpose -- did I interrupt, Your Honor?

JUDGE BARNES: I would like to ask one question: Is the responsibility for monitoring the electrocardiogram and the arterial blood pressure your responsibility or the surgeon, or is there a clear dividing line?

A Well, f something goes wrong, it would be my feeling ---

JUDGE BARNES: It is your fault.

THE WITNESS: That we both get sued. But certainly during the average procedure it is the responsibility of the anesthesiologist. And, as I say, the surgeon will also probably get sued as well.

During a heart procedure you try to put the monitor where both the primary surgeon and the primary anesthesiologist can see it, because you are playing a balance between what each of you do to the heart.

By Mr. Kaplan:

Q Now, what medical purpose is served for the anesthesiologist by monitoring the arterial and the intravenous blood pressure of the patient during anesthesia?

A Increased knowledge.

Q Of what specifically, Doctor?

A The cardiovascular status of the patient.

Q Is the cardiovascular status of the patient a piece of knowledge that the anesthesiologist uses in determining what leve of anesthesia he would administer?

A Yes.

Q So that one of the purposes for this monitoring is to guide you in the administration of inhalation anesthetics?

A Yes. But as I pointed out before, intra-arterial monitoring will probably be used in less than one percent of the 20 million anesthetics given each year in the United States. It has its own complications as does any invasive

ms-26

monitoring technique. And a trained person should be able to give an anesthetic without resort to dangerous monitoring techniques. I mean, if you ask me, it is like looking at you now, are you in good health?

Well, rather than sticking a needle into your heart to find out, I would probably give you a straight answer.

Q I would not want to ask for free advice. I think in answering that question ---

A Well, you were the other day.

Q That came under the equal time rule.

In answering the last question, and indicating that particular sort of monitoring was used in less than one percent of surgical procedures, you used the word "intra-arterial monitoring," correct?

A Correct.

Q What is that, in layman's terms?

A Sticking a needle into an artery, generally a radial artery.

Q There are other ways of monitoring blood pressure, are there not?

A Yes, of course there are. There is a Riva Rocci blood pressure cuff technique, which is the most widely used. That suffers from the problems that it is done intermittently and can only be done intermittently. It takes the time of the person to do it. It fails when the patient is very

vasoconstricted, i.e., the peripherals are not very well perfused with blood.

So, there are disadvantages to it, and the sicker the patient the greater the disadvantages, so it is not a very good thing on seriously sick patients to apply this sytem.

Q And on seriously sick patients there would be greater likelihood using intra-arterial monitoring?

A Correct.

Q So the Riva Rocci technique is used while patients are under anesthesia?

A Correct.

Q It is quite commonly, is it not?

A Correct.

Q Would you hazard a guess as to what proportion of procedures it is used in?

A Oh, it must be in the high 90 percents.

Q And in fact there are anesthesia machines on the market which come equipped with at least some of the components of such blood pressure monitoring devices, right, as part of the anesthesia machine?

A Yes. We have Riva Rocci Sphygmomanometers put on to anesthesia machines to prevent other physicians and nurses from stealing our anesthetic equipment or borrowing might be a better word.

Q Now, apart from monitoring blood pressure, heartbeat,

ms-28

EKG and electroencephalogram, I think is what you meant by EEC ---

A EEG.

Q EEG, I am sorry.

A EEC is something else.

Q Any other kinds of monitoring that an anesthesiologist does during anesthesia?

A You monitor the urine output of the patient commonly; you monitor the temperature of the patient, particularly if it is a long operation or a cold operating room. The desires of the surgical team for temperature, and operating rooms don't go along with the best interests of a patient. So you monitor the temperature.

Those are the main things. You, of course, are watching the patient's color and the pulse of the patient which you can generally see from some peripheral artery.

Q Now, what medical purpose does monitoring the patient's temperature during operations serve of the anesthesiologist?

A Well, he wants to keep it as near normal as possible, most of the time.

Q Does that have some relationship to the administration of anesthetic agents for the anesthesiologist?

A Well, as you get down to 20, below 28, 29, Centigrade, the amount of anesthetic that you require is lessened very considerably and ultimately of course you don't need any

ms-29

anesthesia when you are frozen stiff. If you are altering the temperature of the patient on purpose, it is part of the anesthesiologist's job. But that is only done during open heart surgery, most open heart surgery, and during some newer surgical procedures.

And again we must say in a very small percent of the total, and ---

Q But on a far more common basis anesthesiology is concerned to know patient's temperature during surgery for purposes of administering anesthetics; is that right?

A Yes.

Q And what purpose is served by monitoring a patient's EKG?

A Well, I thought I had answered that. It is to assess the cardiovascular status of the patient. It is one measure of the cardiovascular status of the patient.

Q So largely the other measures of cardiovascular status -- it is important to monitor the EKG to properly administer anesthetic agents, correct?

A Well, I think we are getting the thing a little out of perspective. There have been lawyers that have suggested that the EKG should be monitored routinely during general anesthesia. However, there are problems of malfunction of the electrical equipment associated with the cardioscopes. And it is a very reasonable point of view, certainly one held outside of this

ms-30

country, that the risks of monitoring the EKG are greater for routine anesthesia than the benefits to be gained by monitoring the EKG.

However, that is not the view generally held in this country, and I would think that the majority, probably only just a slight majority of general anesthetics do have now EGK monitoring.

Whether this is because of medical-legal reasons, rather than medical reasons, I think is very debateable, and it is being debated.

Q Nevertheless, that equipment is monitored by the anesthesiologist where he monitors it for the purpose ---

A And so by everybody else, too.

Q Well, we will come to that in a moment. Where it is monitored by the anesthesiologist it is monitored for the purpose of giving the anesthesiologist information that he regards as necessary to the proper administration of anesthesia?

A No, he does not really regard it as necessary to the proper administration of anesthetics. It is a useful reassurance of the well-being of the patient.

On rare occasions, very rare occasions, can it tell you something about the depth of anesthesia.

Q Now, what are the companies that manufacture EKG equipment?

A Hewlitt-Packard is one of the major companies; Electronics For Medicine; Lixington Instruments; oh, there is a company with a German type name. I can go on.

ms-31

It is another committee in the hospital which decides which monitors should be used. I do have a member of my department on the committee but because it isn't primarily concerned with the operating room, we try to standardize on the monitors used and chosen by this committee predominently for use outside the operating room. We do have input to this committee.

Q But there are other manufacturers of that equipment, correct?

MR. THURMAN: Objection, Your Honor. He has gone far enough. I think it is going completely out. Everybody knows EKG and monitoring equipment such as completely outside the operating room or mainly outside the operating room, as the witness has testified, has no relevance to this case and is outside the socpe of direct.

JUDGE BARNES: If Mr. Kaplan will stipulate that we can eliminate that part of cross-examination. But I don't expect him to do that.

MR. KAPLAN: Of course, we will not do so, Your Honor.

MR. THURMAN: I expect him to go into electricity next.

THE WITNESS: Or trousers.

MR. THURMAN: So far afield here and that is my objection.

ms-32

JUDGE BARNES: All right, I will overrule your objection.

By Mr. Kaplan:

Q There are other companies that manufacture EKG equipment than those that you have mentioned?

A Yes. Electrodyne is a big one. There must be a greater, well, there is a greater, far greater number than manufacture anesthetic machines.

Q Can you recall any others as you sit here this morning that you have told us already?

A Well, would you read out the list I have told you?

Q Hewlitt Packard, Electronics For Medicine, Lexington Instruments, and Electrodyne, I believe are the ones I have noted down.

JUDGE BARNES: I believe he said there are other companies.

THE WITNESS: There are other companies.

JUDGE BARNES: We will have another question. There are other companies, he said.

By Mr. Kaplan:

Q Now, what manufacturers of equipment used for monitoring blood pressure, can you name those that you are aware of for us?

A Same companies I think now all have facilities. I also gave you Lexington Instruments, which you didn't read out to me, did you?

ms-33

Q I thought I had, Doctor.

A Well, anyhow if I didn't, it was inadvertent. All these companies now are producing console equipment whereby you put an extra console in and have your extra channel.

Q What about temperature measuring devices?

A Well, probably the best devices are still the ordinary clinical thermometer or bath water thermometers. The problem with bath water thermometers is they likewise get stolen.

Q And there are electronic devices for measuring patients' temperature, are there not?

A There are.

Q And who are the manufacturers of electronic devices?

MR. THURMAN: Objection, Your Honor, outside the scope of direct.

JUDGE BARNES: Overrule the objection.

MR. THURMAN: You overrule?

JUDGE BARNES: You may answer, yes.

THE WITNESS: Yellow Springs is a company that is, you know, wherever Antioch is in Ohio. They make telethermometer probes. I think they are a small company. The problem with telethermometer probes is they are an anternative source to ground for radiofrequency used in electric surgery so therefore there have been quite a lot of burns associated with the use of telethermometers.

ms-34

By Mr. Kaplan:

Q Any other manufacturers of that equipment that you can think of, Doctor?

A Yes. The people who make cooling blankets tend to make monitors. Oh, it is so long since we have bought some cooling blankets, I have forgotten now which companies.

Q And are there very many manufacturers of ordinary clinical thermometers?

A Clinical thermometers?

Q Yes.

A I haven't the faintest idea. I don't buy clinical thermometers. My wife buys them for home and the hospital purchasing agent buys them for the hospital.

Q Now, Doctor, were you at a meeting of the American Society of Anesthesiologists in San Francisco last fall?

A Yes.

Q And there was an exhibition of medical equipment at that meeting?

A There always is.

Q Did you attend that exhibition?

A No.

Q Have you ever seen a prototype anesthesia machine developed by General Dynamics Corporation?

A No.

Q Are you aware that they have developed such a machine?

ms-35

A I think I had heard rumors. One is always hearing rumors about companies that are thinking of designing anesthetic equipment, and of anesthetists that are trying to do so. But they never seem to get very far.

Q What companies, by the way, Doctor, manufacture, as far as you know, anesthetic machines that are sold in the United States?

MR. THURMAN: Objection, Your Honor, that is a repeat question to what was on direct. Certainly cross-examination should go further than just repeating a direct examination.

JUDGE BARNES: Well, we will permit this one repeat question, Mr. Thurman. Thank you.

THE WITNESS: Well, I think I have stated a few times that over 90 percent of the market is divided between Airco, Air Products and BOC.

Now, having got down to beyond the 90 percent, into the small manufacturers, Draeger have attempted to enter the North American market, and Mr. Schreiber was their spearhead. Now, Draeger is a great big German-based company. And my estimate is that ---

MR. KAPLAN: Excuse me, please, Your Honor, if I may interrupt. We had Mr. Schreiber here yesterday.

I suggest that if what the witness is about to do is to speculate about what Draeger's success in the American

ms-36

market is it is neither the best evidence as to Draeger's success in the American market nor to suggest what companies who make anesthesia have sold in the United States.

JUDGE BARNES: Well, I believe it is responsive. I don't belive he said make them. I don't think he got around to that.

Did you say they make them and sell them, or not?

THE WITNESS: Well, they certainly sell them. And it is my understanding that they either make them or are about to make them. My estimate of their market, judged again by visiting lectureship perambulations.

JUDGE BARNES: I don't believe he asked you market share.

MR. THURMAN: Your Honor, I object strenuously to Mr. Kaplan interrupting the witness.

Now, if he wants to move to strike after the answer is there, that is fine. But he will accept a lot of answers and let him continue, but when he does not want to hear, he interrupts.

JUDGE BARNES: Well, we are all that way, Mr. Thurman; we hear what we want to hear.

All right, did you complete your answer? You named the Draeger Company.

THE WITNESS: Yes. I have never used an anesthetic machine in almost 14 years in this country not manufactured

ms-37

by Ohio, who are now in Airco, Forregger, who are now in Air Products, or one of the Biomarines which come out with British Oxygen Company.

Nor for that matter in Britain where I gave testimony I did for years anesthesia and saw throughout my training anesthesia machines. They were all British Oxygen machines.

By Mr. Kaplan:

Q Do you know anybody else who makes and sells anesthesia machines in the United States?

A Well, you are trying to tell me General Dynamics.

JUDGE BARNES: Do you know this?

By Mr. Kaplan:

Q I am asking for your knowledge, Doctor.

A No.

Q You do not?

A No. There are quasi-anesthetic machines that Bird and Emerson who are inhalational therapy ventilator manufacturers have attached vaporizers and flow meters to and Dr. Wendall Baker was the sort of co-designer of one of these with -- and people are always sort of attaching flow meters and vaporizers to things and trying to get their name stuck on it.

So, I am sure that you could give, parade a great group of witnesses who claim to have designed anesthetic equipment and to have marketed it. But it had not, it has not had an appreciable effect on the market.

ms-38

I did say earlier in testimony that I had used a McKesson machine, which is for dental anesthesia.

Q Who, by the way, is Dr. Wendell Baker?

A He is the Chairman of Anesthesia at Mount Ainai Hospital in New York, and he is Vice Chairman of Z-79.

Q And he has written widely on the subject of anesthesia.

MR. THURMAN: Objection, Your Honor. This is outside the scope of direct and it is irrelevant at this point. If he wants to call him as a witness, he can call him.

JUDGE BARNES: At this point your objection is out of order.

THE WITNESS: He would not be Chairman of the Department of Anesthesia at CCNY if he hadn't written widely.

By Mr. Kaplan:

Q And he is in fact one of the authors of the book called Automatic Ventilation of the Lungs; is that correct?

A Yes, that is a book that is concerned with all types of ventilators, predominantly with inhalation therapy types of ventilators.

Q Would you consider Dr. Wendell Baker as an authority in the field of anesthesia?

A Yes.

Q And in the field of inhalational therapy would you regard him as an authority?

A Yes. People are authorities in both fields, occasionally.

ms-39

Q Now, I think there was a comment made during the course of your direct testimony which I didn't quite get. At the Harvard Hospitals, what professional department has responsibility for inhalational therapy?

MR. THURMAN: Your Honor, this is another repeat question from direct examination. I object.

JUDGE BARNES: You may answer, Doctor.

THE WITNESS: At the Massachusetts General Hospital, at Beth Israel Hospital, and the Children's Hospital, and the Boston Hospital for Women it is Anesthesia Department. At Cambridge Hospital, at Mount Albany Hospital, it is the Department of Internal Medicine. Boston City Hospital Harvard got kicked out of recently and there it was the problem of Internal Medicine.

By Mr. Kaplan:

Q They had trouble with ROTC, too, didn't they?

A Yes, that is right.

Q Did you have anything to do with purchase of inhalation therapy equipment for Beth Israel?

A Yes.

Q Do you participate in process decision on what to buy?

A I try to delegate that to Dr. Hennord Bushnell, who is the Head of Inhalational Therapy in our hospital. Occasionally an administrator will try to make an end-run around him to me.

Q But you have the ultimate responsibility for that at

ms-40

Beth Israel?

A The same way as the President of the United States has responsibility for legal enforcement.

(Laughter.)

MR. TOPKIS: Who is your Attorney General?

By Mr. Kaplan:

Q Now, I think you said earlier that your direct laryngoscopes are something you indicated ---

A Direct Laryngoscopes?

Q Direct, I did say that. And they are used in inserting endotracheal tubes into the patient?

A Correct.

Q Are there not various kinds of forceps and other equipment that are used for that purpose?

A Yes, each anesethic department will have one or two, maybe conceivably three pairs of forceps.

Q And that is inhalation anesthetic equipment and accessories, too, is it not?

A Yes. The most commonly used one is a McIntosch one which I think is manufactured by, used to be manufactured by Charles King, which was taken over by British Oxygen.

Q Yes. Where is Charles King located?

A In London.

Q Do you know whether they sell in the United States?

A Well, British Oxygen I gather sells in the United States.

ms-41

Q Well, you really gather that Harris Lake and Fraser Sweatman sell in the United States, don't you, Doctor?

A Well, I have difficulty between monopolies and conglomerates.

Q I see. So you have decided that British Oxygen is a monopoly; is that right?

A I didn't say that.

Q Well, is that your opinion, Doctor?

JUDGE BARNES: Now, let's ---

MR. KAPLAN: Your Honor, it seems to me the witness has just said something that indicates a certain bias here, and I think it is relevant to the weight that supports his testimony.

JUDGE BARNES: Well, if he has indicated then he has indicated, we don't have to pursue it.

THE WITNESS: I think -- do you wish to question me on this matter?

MR. KAPLAN: Well, the Judge has sustained the objection, I believe, and there is no question pending.

By Mr. Kaplan:

Q Are you familiar with the Watson-Bennett anesthesia machine?

A No.

Q Ever heard of the Watson-Bennett Company?

A I have heard of a Bennett Company that is inhalational, makes inhalational therapy ventilators.

ms-42

Q You have heard of the Bennett ventilator?

A I have heard of Puritan-Bennett ventilator.

Q I am speaking of companies other than Puritan-Bennett.

A Watson-Bennett, no, I haven't heard of them.

Q Would it surprise you to learn Watson-Bennett -- I am sorry, it is Watson-Barnet, do you know the Watson-Barnet Company?

A Yes.

Q They are located in the UK?

A Yes.

Q And they make anesthesia machines?

A Marginally. I don't know how many they have. I suppose if you walked around all the hospitals you would find one or two.

Q And they make ventilators?

A They certainly make ventilators, yes. This is the area that I referred to of various anesthetists trying to get their names on machines by converting inhalational ventilator machines to machines and they are occasionally used and I doubt if you would find a fraction of one percent of anesthetists in this country who would have heard of Watson-Barnet. It was not even a common enough name when it was mispronounced that I could pick it up.

Q But they make ventilators?

A They certainly make ventilators, yes.

ms-43

Q Are you aware that they have geen acquired by the North American Phillips Company, a U.S. corporation?

A Yes, I think I know that.

Q Do you know of the Franklin Company in the UK?

A No.

Q Have you ever heard of Gold Cross Sypplies in the United Kingdom?

A No.

Q Now, Doctor, you said I think that the top three, as you have referred to them, Airco, Air Products, and your combination of Fraser Sweatman and Harris Lake, top four really, had as far as you could see 95 percent of the market for inhalation anesthetic equipment and accessories?

A That is correct.

Q Now, that includes a great many products, as we have seen. Would that generalization hold for everyone of the products on the list which is Commission Exhibit 316?

A No.

Q As a matter of fact, for particular products there might well be other companies that are the top manufacturers?

A Well, if we take, starting at the bottom of the list, we will disregard laryngoscopes in which we use Charles King, BOC, Fraser Sweatman, whatever you name them, laryngoscopes. We can go to trachial tubes.

Now, trachial tubes, the market there with which Z-79

ms-44

has had dealings with the manufacturers is reasonably evenly divided at the moment in the United States between National Catheter and Portex. Portex is a subsidiary of Smith Industries.

So here is one of the groupings, which, as I said, was not exclusively used in anesthesia, in which the market is divided between other companies.

Q As far as you know, does Harris Lake or Fraser Sweatman make anesthesia ventilators at all in the United States?

A They make them, manufacture them?

Q That is what I said, Doctor.

A I think the answer to that is no.

Q And as far as you know do they make any rubber products at all, used in inhalation anesthesia?

A Well, certainly their machines come with rubber products on them.

Q Yes. But do they make the rubber products as far as you know, Doctor?

MR. THURMAN: Objection, Your Honor.

THE WITNESS: I am not party to the trade secrets of the company.

By Mr. Kaplan:

Q As far as you know, you don't know one way or the other on that subject; is that correct?

MR. THURMAN: Objection. He stated he didn't know.

ms-45

It didn't make any difference.

JUDGE BARNES: He has answered the question, I think.

By Mr. Kaplan:

Q Now, on the item of anesthesia ventilators, there are a number of them onthe market?

A There are.

Q And there are also various inhalation therapy ventilators?

A That is correct.

Q And the Bird Corporation, in your judgment, is that a prominant manufacturer of inhalation therapy ventilators?

A Certainly numbers, from thepoint of view of numbers, they have sold more ventilators, I guess, than the rest of the manufacturers in the world put together.

JUDGE BARNES: Is that a machine the nurse pushes around to the room and has a patient breathe into it for 10 minutes?

A Yes.

JUDGE BARNES: They call it a "Green Bird" in many hospitals?

THE WITNESS: Yes, it is a green machine.

By Mr. Kaplan:

Q And there are several models of Bird machine, are there not?

A Yes, sir. It is up to 20, I suppose.

Q And some of them can be used for long-term therapy were patients can be expected to use it for a long time?

ms-46

A So Dr. Bird claims, and so people have used them.

Q Now, in fact the Bird Corporation manufactures a device which can be connected to several models of his inhalation therapy ventilators which is sold for the purpose of using those ventilators as anesthesia ventilators, don't they?

A Yes, that is technically correct. It is again back at the old game of taking a basically inhalational therapy ventilator and sticking assessments, attachments, onto it and trying to make it into an anesthesia machine.

You can modify a Bird ventilator and use it in the operating room as an anesthesia ventilator.

It has not been all that successful for various reasons which really aren't relevant. And I don't wish to impugn inhalational therapy equipment unnecessarily. But it is designed for inhalational therapy, and it is back like this idea for using Rolls Royces for carting sheep around. Or in this case it would be using a truck for going to church in, I guess.

Q But there are, in your experience, Doctor, anesthesiologists who use Bird inhalational therapy ventilators suitably adapted for the purpose of anesthesia ventilators?

A There are anesthesiologists who make full use of the Bird Corporation.

Q Now, there are also other ventilators that can be used both for inhalation therapy and for anesthesiology apart from

ms-47

Bird's, correct?

A There are a few that have been modified, yes, for use in inhalational therapy, ones that have been modified for use in anesthesia, that I have said and I have said that they are an insubstantial part of the market.

Q The Engstrom ventilator can be and has been used for both purposes, has it not?

A It has.

Q Are you familiar with the Cape Waine ventilator?

A Yes, that is predominantly a British machine. There are sort of a few scattered around this country.

Q And they areused for both inhalation therapy and for anesthesia, correct?

A Yes. Yes, they are. It is such an uncommon ventilator in this country that I doubt whether you would be able to find a hospital where they are used for both. There are, maybe you can count them on the fingers of one hand the hospitals that I have seen them or heard of them being used in. We are talking about insubstantial parts of any market.

Q And the same is true of the Emerson ventilator, or ventilators, they can be used for both and are used for both?

A Yes, the problems of an Emerson ventilator, Emerson is a Cambridge, Massachusetts, firm, and the hospital administrator at Hopkins got in cahoots with Emerson, and modified the Emersonventilator for use in operating rooms. They haven't

ms-48

made it -- well, it is difficult to make explosion proof, being an electrical ventilator, and it has not had a great success. Although, the Emerson post-operative ventilators have had a very large success as inhalational therapy ventilators for seriously sick patients who can't breathe, particularly ones with solid lungs and acute lung disease.

Q Now, Doctor, I think on direct you said that the overwhelming number of inhalation anesthesia machines in the United States were Ohio and Forregger, correct?

A What do you mean "on direct"?

Q When Mr. Thurman was examining you earlier.

A Yes.

Q And I believe you also testified that there were a scattering of British Oxygen machines on the coasts where British trained doctors are, is that correct?

A That is correct.

Q The BOC table you were referring to, it was a Boyle table?

A Yes, modifications of the Boyle table.

Q And that is manufactured, so far as you know, by Harris Lake, is that correct?

A Yes. Again I am not a party to Fraser Sweatman's confidential trade secrets. You know, I don't go around factories and actually see that they are manufactured. I have to place an order, or the hospital places an order with a company, and we don't really know where the thing has been

ms-49

manufactured.

Q Now, the Boyle machine differes in its configuration in some respects from, for example, the Ohio Manufacturing machine, does it not?

A It looks a little different, but the basic design is the same. And if you go into the history of the design of anesthetic machines, Cooky Boyle, who as an anesthesiologist at St. Bartholomew's Hospital, designed his machine during the First World War and the American Forces in what, the AEF I suppose it was, saw this machine and really this English speaking world has not gone very far in its design of machines.

There is basically the table, and there is the flow meters in back of it, and in general on the right-hand side as you look at the flow meters on the right-hand side of the flow meters and they come off and lead to the patient. And there is pretty good standardization. About as much as there is between jet aircraft between Britain and here, you know.

Q The Boyle table is what is called an open frame anesthesia table?

A If you say so.

Q Well, does the term mean anything to you?

A No.

Q Now, some of the controls and valves on the Boyle machine are located differently from controls and valves on the Ohio machine, right?

A Yes.

Q And I suppose one of the reasons that you find Boyle machines on the coasts where the British trained doctors are is because British trained doctors have some preference for the Boyle machines, correct?

MR. THURMAN: Objection, Your Honor. It is outside of the scope of direct and immaterial and irrelevant. Next I suppose you will ask about rollers on the bottom of the table. I don't see relevancy. I think we are wasting time.

JUDGE BARNES: I will overrule your objection.

THE WITNESS: I have asked that question myself, the exact same question that you have asked to the people who have been recommending that we purchase a given type of anesthesia machine. Because I have never wanted one's country of origin to be held against one in any way, shape or form.

And I have sometimes suspected that the reason that a suggestion to buy a certain type of machine was predicated on this origin. And the answer I got back for most of the, middle part of the 1960's was delivery times were shorter.

Now, the Forregger and Ohio, and therefore most people don't like buying a piece of equipment they have to wait a little time for. And when one looked into it that was probably the main reason.

Now, you buy equipment because, as I have told you, usefulness and sales, servicing, and so on. Now, you do as a

training program obviously have a responsibility to training your residents on the machines they are likely to use throughout the United States. And the training programs, the major training programs train their people on the Foregger or Ohio and the British Oxygen machines.

You even in a cosmopolitan university like Harvard -- the majority of the machines are Ohio and Foregger and British Oxygen are a minority which I maintain crept in when the supply of other American, native-born machines was low.

Now, whether that is the correct reason, it is the reason I have been given.

By Mr. Kaplan:

Q Well, were those problems in supply to your personal knowledge, not what you have haerd, problems that were localized on the East and West Coasts?

A I would think not.

Q And are they problems of supply that were peculiar to British trained doctors?

A No, they would be, maybe the others didn't know where to order the machines. I mean, there are many things that go into these decisions.

Q Now, I just want to clear up a couple of things that I think might have been a little bit confused on direct.

I think you were asked what adapters and fittings were, and the answer, that you supposed that they were used to keep

ms-52

trachial tubes and the Y-piece next to the mouth of the patient. Do you remember so testifying?

A I think that is a reasonably accurate transcription.

Q Would you agree with the following testimony that Mr. Schreiber gave yesterday, and I am quoting the record, Your Honor.

"There are Y-pieces. They normally have an internal 15 millimeter connection, which is a standard. At times, you want to connect a mask which has a 22 millimeter connection. You need an adaptor in between, Or in the veterinary field, there are old masks on the market which did not comply with today's standards. We need adaptors to overcome the difference in the old and new standards. That's about it."

Would you disagree with that or agree with it?

MR. THURMAN: Objection.

JUDGE BARNES: I think this is proper cross-examination.

THE WITNESS: I would agree with the statement. I don't think that any statement of Mr. Schreiber's that you have quoted to me is in any way in disagreement with my part of my testimony.

By Mr. Kaplan.

Q Well, just one other. I think you stated in answer to the question, what were yokes, handscrews and values, that you thought they were used to maintain the machines. Do you

recall giving that testimony?

A I think that is possibly a rather flippant answer about the minutiae of anesthesia machines.

Q But do you agree with Mr. Schreiber is the question?

A Well, if Mr. Schreiber in his book defines them in some different way, then I would defer to Mr. Schreiber.

Q So that spanners and wrenches used to maintain machines are not valves certainly?

A I never implied that they were valves.

Q Would you agree with Mr. Schreiber as to the use of yokes, handscrews and valves, and I quote:

"In the United States, gas cylinders are attached to anesthesia machines by means of yoke connection, which is a device which fastens the gas cylinder against the anesthesia machine and provides also for a non-interchangeability of the gases and tied into the anesthesia machine."

Would you agree or disagree?

A I would ---

MR. THURMAN: Your Honor, I don't think it is really proper to read somebody else's testimony to another witness because he would hear the testimony himself. I am not even sure, I assume that it is proper reading. It can be taken in many different ways. I don't believe somebody else can be used ---

JUDGE BARNES: The doctor can answer his question. He has handled himself very well. I think he understands the question.

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MR. THURMAN: Oh, I have all the confidence in the world the doctor can handle the question.

JUDGE BARNES: I think it is proper. He can be asked about a statement of somebody else. He knows Mr. Schreiber.

MR. KAPLAN: Your Honor, I have no further questions.

MR. WOLLEN: No questions, Your Honor.

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REDIRECT EXAMINATION

By Mr. Thurman:

Q Doctor, are the monitoring devices used in the operating room by the anesthesiologist and the surgeon?

A Correct.

Q Used outside the operating room?

A The same ones are used outside, yes.

Q Do you know to what extent they are used outside the operating room?

A I would have thought that if you took the cardioscope market, that is the monitoring of the hot action EKG, that 80 -- 70 or 80 percent probably of the market, maybe now even 90 percent of the market was now outside of the operating room.

The monitoring of arterial pressure is probably a slight majority outside the operating room. These are, the monitoring of the hot action, the cardioscopes, are far more common than the monitoring of the arterial, so that if you are aggregating the two together I suppose that 70 percent would be outside

the operation room and therefore not used by anesthetists.

JUDGE BARNES: Doctor, what percentage of the operations, to your knowledge, use the arterial monitoring?

A. THE WITNESS: I would think around one to three, one to three percent, or one th five percent.

By Mr. Thurman:

Q Doctor, I believe you testified more then equately about what is invol ved in the administration of anesthesia, but I would like to ask you again to clear for my mind, are monitoring devices used in administration of directional and inhalational anesthesia?

A. In direct administration ? No.

MR. THURMAN: We have no further questions, Your Honor.

RECROSS-EXAMINATION

by Mr. Kaplan:

Q. Doctor, You Just, I think in response to the Judge's question, said in one to three percent of the surgical procedures employed in anesthesia you used intra-arterial monitoring?

A. I think the Judge ashed me what percent of inhalation anesthetics.

Q. I see. And you are using one to three percent of inhalational anesthetics. That pertains to intra-arterial blood pressure monitoring?

A. That is correct.

Q And not generally?

A. No.

Q In fact, blood pressure monitoring is used in a much higher percentage?

A

Q And I think you testified the percentage was in excess of 90 percent?

A That is correct.

Q Doctor, are anesthesia carts used in the direct administration of anesthesia?

A We get into a semantic problem. I mean is jet fuel or a tanker used in flight. It is a supply, it is a supply item.

Q That is right, it helps out.

A Yes.

Q It is useful in the administration of anesthesia?

A That is correct.

Q So, too, are monitoring devices?

A A monitoring device, as I said, is a mixed blessing. And in serious operations it is undoubtedly a great help. In routine operations it is equivalent. I mean, it is equivocal whether it is useful.

Q Some doctors think it is; some don't, is that correct?

A Certainly they do. And most lawyers engaged in medical malpractice do, too.

MR. KAPLAN: No further questions.

JUDGE BARNES: Any further questions, Mr. Thurman?

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REDIRECT EXAMINATION

By Mr. Thurman:

Q Is blood pressure monitoring in use outside the operating room?

A Oh, yes, I mean everybody has their blood pressure taken, don't they?

JUDGE BARNES: Is the blood pressure that you have been referring to, the monitoring by the armband type thing?

THE WITNESS: Yes, yes. It is exactly the same as an anesthetized patient as it is on a conscious person.

JUDGE BARNES: In a doctor's office you would use it?

THE WITNESS: Exactly the same equipment, yes. That that is one of the reasons we attach them to the machine, so that the surgeons don't purloin them.

By Mr. Thurman:

Q One last question, doctor. Do hospitals ever buy the components for the purpose of assembling anesthesia machines?

A No.

MR. THURMAN: We have no further questions.

MR. KAPLAN: One moment, Your Honor, please.

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FURTHER RECROSS-EXAMINATION

By Mr. Kaplan:

Q Doctor, hospitals certainly do buy some of the components of anesthesia machines?

A Indeed they do.

Q They buy vaporizers, do they not?

A Yes, a small number of vaporizers are bought, certainly.

Q And they often add those vaporizers to anesthesia machines that they already have; is that correct?

A "Often"? They occasionally do.

Q And in fact there are different types of vaporizers, some of which are drug specific and some of which are not, correct?

A Correct.

Q And not everybody sells drug specific vaporizers?

A How do you mean "everybody"?

Q Not everybody who sell vaporizers sells drug specific vaporizers.

A I think that you can get a vaporizer suited for every safe inhalational anesthestic from each of the major anesthetic manufacturers.

Certainly it is my understanding that the Big Three always will supply you with a vaporizer for any anesthetic.

MR. KAPLAN: Doctor, would we at least go to the "Big Four"? I feel a lot better.

(Laughter.)

MR. KAPLAN: May I have the last answer, please?

(The record was read by the reporter.)

By Mr. Kaplan:

Q Not every one of the so-called Big Three can supply a

vaporizers drug specific to the drug Ethrane, for example, can they?

A A vaporizer, a vaporizer specific for Ethrane, no, but each of them can provide you with a vaporizer that can certainly be used for Ethrane.

Q That is correct. Now ---

A Why should you necessarily in and of itself want a vaporizer specific for a drug?

Q Well, doctor, let's see if we can't suggest a reason. In a vaporizer in which you can use safely all anesthetic agents today on the market, there is some danger of confusing the anesthetic agents, is there not?

A There is.

Q And the confusion of anesthetic agents in a vaporizer might result in a fatality, might it not?

A Correct.

Q Probably has, in your experience, correct? I don't mean you personally, but you know of such cases.

A I have heard of such cases. I don't know of such cases. But injection of the wrong substance has also been done. I mean there is no limit to the number of errors that one can think of if one sets his mind to it.

Q That is correct, and I assume vaporizers which can use one and only one anesthetic agent reduced risk of using the wrong agent; is that correct?

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A That is correct. But like a lot of things it comes down to the cost effectiveness and this is what ANSI's Z-79 is all about. And these are very tricky decisions, and e whole civilized life-making decisions about cost effectiveness.

Q And different anesthesiologists make that decision in cost effectiveness in different ways, would they not?

A That is right. This is why the Standards Committee and the Committee on Mechanical Equipment need to look into these matters and that is why for my sins I am Chairman of this committee. We are empowered to make recommendations for those people who can't sort of waste their time like us, sort of thinking about these matters.

Q And they are perfectly respectable and skilled anesthesiologists who without departing from standards of good practice might disagree with a standard promulgated by the Standards Committee; is that correct?

A Certainly, yes.

Q And might well prefer drug specific vaporizers, correct?

A They might, and so might the Standards Committee in a few years. It depends on how many anesthetics we have on the market. The drug that you referred to, I think some anesthesiologists think will have a very transitory life in clinical medicine. Would you design, or put another way, I would not advise a company necessarily to design a specific line for a drug with a very transitory life.

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Q You meant, though, to say vaporizer not ventilator, am I correct?

A Vaporizers, yes, sorry.

Q Now, hospitals purchase other pieces of equipment that are components of anesthesia machines separate from the machines, do they not?

A Yes.

Q And when you order an anesthesia machine from a manufacturer you have flexibility in determining precisely what components will be included in that machine, correct?

A Some flexibility, yes.

Q As a matter of fact, I think you decide like choosing a car. You can choose it any way you want.

A Yes.

Q And, for example, if you were buying an Ohio anesthesia machine, you could buy a machine with a drug specific vaporizer, or you could buy one with a vaporizer useable for all kinds of anesthetics?

A That I think is correct, yes.

Q And there are several other options that you would in ordering the machine?

A Yes.

Q So that the hospital really in a sense can custom design its own anesthesia machine and the manufacturer will build it for you, correct?

A Well, that is going a little far. That is like saying you can get General Motors to design your Rolls Royce. You have a limited option. Like in the purchase of a car. But it is probably a little less. Well, I am sure it is a little less than buying a car.

Q As a matter of fact, there is one important difference, is there not, between buying a car and buying an anesthesia machine, in that you can have an Ohio machine made by Ohio with components made by other companies if you so desire, correct?

A If you insist, yes.

Q If you insist, but it will be made for you; in your experience it has been done?

A Yes, it has been done.

MR. KAPLAN: No further questions, Your Honor.

JUDGE BARNES: Mr. Thurman?

MR. THURMAN: Can I have just a moment, Your Honor?

(Brief pause.)

MR. THURMAN: I have no further questions, Your Honor.

JUDGE BARNES: All right, Doctor, thank you very much.

(Witness excused.)

JUDGE BARNES: We will adjourn until 2 o'clock.

(Whereupon, at 12:37 p.m., the hearing was recessed, to reconvene at 2 p.m., the same day.)